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OF THIS

VOLUME.

Essay of Human Understanding, Book II. Chap. XXIII. to the End of Chap. IV. Book IV.

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OF

HUMAN UNDERSTANDING.

BOOK II. CHAP. XXIII.

Of our complex Ideas of Substances.

§. 1. THE mind being, as I have declared, furnished with a great number of the simple ideas, conveyed in by the senses, as they are found in exterior things, or by reflection on its own operations, takes notice also, that a certain number of these simple ideas go constantly together; which being presumed to belong to one thing, and words being suited to common apprehensions, and made use of for quick dispatch, are called, so united in one subject, by one name: which, by inadvertency, we are apt afterward to talk of, and consider as one simple idea, which indeed is a complication of many ideas together; because, as I have said, not imagining how these simple ideas can subsist by themselves, we accustom ourselves to suppose some substratum wherein they do subsist, and from which they do result; which therefore we call substance (1). Ideas of substances how made.

(1) This section, which was intended only to show how the individuals of distinct species of substances came to be looked upon as simple ideas, and so to have simple names, viz. from the supposed substratum of substance, which was looked upon as the thing itself in which inhered,

Our idea of substance in general.

§. 2. So that if any one will examine himself concerning his notion of pure substance in general, he will find he has no other idea of it at all, but only a supposition of he knows not what support of such qualities, which are capable of producing simple ideas in us; which qualities are commonly called accidents. If any one should be asked, what is the subject wherein colour or

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and from which resulted that complication of ideas, by which it was represented to us, hath been mistaken for an account of the idea of substance in general; and as such, hath been represented in these words; But how comes the general idea of substance to be framed in our minds? Is this by abstracting and enlarging simple ideas? No: 'But it is by a 'complication of many simple ideas together: because, not imagining 'how these simple ideas can subsist by themselves, we accustom ourselves 'to suppose some substratum wherein they do subsist, and from whence 'they do result; which therefore we call substance.' And is this all, indeed, that is to be said for the being of substance, That we accustom ourselves to suppose a substratum? Is that custom grounded upon true reason, or not? If not, then accidents or modes must subsist of themselves; and these simple ideas need no tortoise to support them: for figures and colours, &c. would do well enough of themselves, but for some fancies men have accustomed themselves to.

To which objection of the bishop of Worcester, our author * answers thus: Herein your lordship seems to charge me with two faults: one, That I make the general idea of substance to be framed, not by abstracting and enlarging simple ideas, but by a complication of many simple ideas together: the other, as if I had said, the being of substance had no other foundation but the fancies of men.

As to the first of these, I beg leave to remind your lordship, that I say in more places than one, and particularly Book 3. Chap. 3. §. 6. and Book 1. Chap. 11. §. 9. where, ex professo, I treat of abstraction and general ideas, that they are all made by abstracting, and therefore could not be understood to mean, that that of substance was made any other way; however my pen might have slipt, or the negligence of expression, where I might have something else than the general idea of substance in view, might make me seem to say so.

That I was not speaking of the general idea of substance in the passage your lordship quotes, is manifest from the title of that chapter, which is, Of the complex ideas of substances: and the first section of it, which your lordship cites for those words you have set down.

In which words I do not observe any that deny the general idea of substance to be made by abstracting, nor any that say it is made by a

* In his first letter to the bishop of Worcester.

weight inheres, he would have nothing to say, but the solid extended parts: and if he were demanded, what is it that solidity and extension adhere in, he would not be in a much better case than the Indian beforementioned, who, saying that the world was supported by a great elephant, was asked what the elephant rested on; to which his answer was, a great tortoise. But being again pressed to know what gave support to the broad-backed tortoise, replied, something, he knew not what. And thus here, as in all other cases where

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complication of many simple ideas together. But speaking in that place of the ideas of distinct substances, such as man, horse, gold, &c. I say they are made up of certain combinations of simple ideas, which combinations are looked upon, each of them, as one simple idea, though they are many; and we call it by one name of substance, though made up of modes, from the custom of supposing a substratum, wherein that combination does subsist. So that in this paragraph I only give an account of the idea of distinct substances, such as oak, elephant, iron, &c. how, though they are made up of distinct complications of modes, yet they are looked on as one idea, called by one name, as making distinct sorts of substance.

But that my notion of substance in general is quite different from these, and has no such combination of simple ideas in it, is evident from the immediate following words, where I say, * 'The idea of pure sub-'stance in general, is only a supposition of we know not what support of 'such qualities as are capable of producing simple ideas in us.' And these two I plainly distinguish all along, particularly where I say, 'what-'ever therefore be the secret and abstract nature of substance in general, 'all the ideas we have of particular distinct substances, are nothing but 'several combinations of simple ideas, co-existing in such, though un-'known cause of their union, as makes the whole subsist of itself.'

The other thing laid to my charge, is, as if I took the being of substance to be doubtful, or rendered it so by the imperfect and ill-grounded idea I have given of it. To which I beg leave to say, that I ground not the being, but the idea of substance, on our accustoming ourselves to suppose some substratum; for it is of the idea alone I speak there, and not of the being of substance. And having every where affirmed and built upon it, that a man is a substance, I cannot be supposed to question or doubt of the being of substance, till I can question or doubt of my own being. Farther, I say, † 'Sensation convinces us, that there are 'solid, extended substances; and reflection, that there are thinking 'ones.' So that, I think, the being of substance is not shaken by what

* B. 2. C. 23. § 2. † Ib. § 29.

we use words without having clear and distinct ideas, we talk like children; who being questioned what such a thing is, which they know not, readily give this satisfactory answer, that it is something; which in truth signifies no more, when so used either by children or men, but that they know not what; and that the thing they pretend to know and talk of, is what they have no distinct idea of at all, and so are perfectly ignorant of it, and in the dark. The idea then we have, to which we give the general name substance, being nothing but the supposed, but unknown support of those qualities we find existing, which we imagine cannot subsist, "sine re substante," without something to support them, we call that support substantia; which, accord-

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I have said: and if the idea of it should be, yet (the being of things depending not on our ideas) the being of substance would not be at all shaken by my saying, we had but an obscure imperfect idea of it, and that that idea came from our accustoming ourselves to suppose some substratum; or indeed, if I should say, we had no idea of substance at all. For a great many things may be, and are granted to have a being, and be in nature, of which we have no ideas. For example: it cannot be doubted but there are distinct species of separate spirits, of which yet we have no distinct ideas at all; it cannot be questioned but spirits have ways of communicating their thoughts, and yet we have no idea of it at all.

The being then of substance being safe and secure, notwithstanding any thing I have said, let us see whether the idea of it be not so too. Your lordship asks, with concern, And is this all, indeed, that is to be said for the being (if your lordship please, let it be the idea) of substance, that we accustom ourselves to suppose a substratum? Is that custom grounded upon true reason or no? I have said that it is grounded upon this, * 'That we cannot conceive how simple ideas of sensible qualities 'should subsist alone; and therefore we suppose them to exist in, and to 'be supported by some common subject; which support we denote by the 'name substance.' Which, I think, is a true reason, because it is the same your lordship grounds the supposition of a substratum on, in this very page; even on the repugnancy to our conceptions, that modes and accidents should subsist by themselves. So that I have the good luck to agree here with your lordship: and consequently conclude, I have your approbation in this, that the substratum to modes or accidents, which is our idea of substance in general, is founded in this, 'that we cannot con-'ceive how modes or accidents can subsist by themselves.'

* B. 2. C. 23. §. 4.

ing to the true import of the word, is in plain English, standing under or upholding (1).

Of the sorts of substance.

§. 3. An obscure and relative idea of substance in general being thus made, we come to have the ideas of particular sorts of substances, by collecting such combinations of simple ideas, as are by experience and observation of men's senses taken notice of to exist together, and are therefore supposed to flow from the particular internal constitution,

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(1) From this paragraph, there hath been raised an objection by the bishop of Worcester, as if our author's doctrine here concerning ideas, had almost discarded substance out of the world: his words in this paragraph, being brought to prove, that he is one of the gentlemen of this new way of reasoning, that have almost discarded substance out of the reasonable part of the world. To which our author replies: * This, my lord, is an accusation which your lordship will pardon me, if I do not readily know what to plead to, because I do not understand what it is almost to discard substance out of the reasonable part of the world. If your lordship means by it, that I deny, or doubt, that there is in the world any such thing as substance, that your lordship will acquit me of, when your lordship looks again into this 23d chapter of the second book, which you have cited more than once; where you will find these words, §. 4. 'When we talk or think of any particular sort of 'corporeal substances, as horse, stone, &c. though the idea we have of 'either of them, be but the complication or collection of those several 'simple ideas of sensible qualities, which we use to find united in the 'thing called horse, or stone; yet, because we cannot conceive how they 'should subsist alone, nor one in another, we suppose them existing in, 'and supported by some common subject, which support we denote by 'the name substance; though it is certain, we have no clear or distinct 'idea of that thing we suppose a support.' And again, §. 5. 'The 'same happens concerning the operations of the mind, viz. thinking, 'reasoning, fearing, &c. which we considering not to subsist of themselves, nor apprehending how they can belong to body, or be produced 'by it, we are apt to think these the actions of some other substance, 'which we call spirit; whereby yet it is evident, that having no other 'idea or notion of matter, but something wherein those many sensible 'qualities, which affect our senses, do subsist, by supposing a substance, 'wherein thinking, knowing, doubting, and a power of moving, &c. 'do subsist, we have as clear a notion of the nature or substance of 'spirit, as we have of body; the one being supposed to be (without 'knowing what it is) the substratum to those simple ideas we have from

* In his first letter to that bishop.

or unknown essence of that substance. Thus we come to have the ideas of a man, horse, gold, water, &c. of which substances, whether any one has any other clear idea, farther than of certain simple ideas co-existent together, I appeal to every man's own experience. It is the ordinary qualities observable in iron, or a diamond, put together, that make the true complex idea of those substances, which a smith or a jeweller commonly knows better than a philosopher; who, whatever

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'without: and the other supposed (with a like ignorance of what it is) 'to be the substratum to those operations, which we experiment in ourselves within.' And again, §. 6. 'Whatever therefore be the secret 'nature of substance in general, all the ideas we have of particular distinct substances, are nothing but several combinations of simple ideas, 'co-existing in such, though unknown cause of their union, as makes 'the whole subsist of itself.' And I farther say in the same section, 'that 'we suppose these combinations to rest in, and to be adherent to that 'unknown common subject, which inheres not in any thing else.' And §. 3. 'That our complex ideas of substances, besides all those simple 'ideas they are made up of, have always the confused idea of something 'to which they belong, and in which they subsist; and therefore when 'we speak of any sort of substance, we say it is a thing having such 'and such qualities; as body is a thing that is extended, figured, and 'capable of motion; spirit, a thing capable of thinking.

'These, and the like fashions of speaking, intimate, that the substance is supposed always something besides the extension, figure, solidity, motion, thinking, or other observable idea, though we know 'not what it is.'

'Our idea of body, I say, * is an extended solid substance; and our 'idea of soul, is of a substance that thinks.' So that as long as there is any such thing as body or spirit in the world, I have done nothing towards the discarding substance out of the reasonable part of the world. Nay, as long as there is any simple idea or sensible quality left, according to my way of arguing, substance cannot be discarded; because all simple ideas, all sensible qualities, carry with them a supposition of a substratum to exist in, and of a substance wherein they inhere: and of this that whole chapter is so full, that I challenge any one who reads it, to think I have almost, or one jot, discarded substance out of the reasonable part of the world. And of this, man, horse, sun, water, iron, diamond, &c. which I have mentioned of distinct sorts of substances, will be my witnesses, as long as any such things remain in being; of which I say, † 'That the ideas of substances are such combinations of simple ideas as 'are taken to represent distinct particular things subsisting by themselves,

* B. 2. C. 23. §. 22. † B. 2. C. 12. §. 6.

substantial forms he may talk of, has no other idea of those substances, than what is framed by a collection of those simple ideas which are to be found in them; only we must take notice, that our complex ideas of substances, besides all those simple ideas they are made up of, have always the confused idea of something to which they belong, and in which they subsist. And therefore, when we speak of any sort of substance, we say it is a thing having such or such qualities: as

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'in which the supposed or confused idea of substance is always the first 'and chief.'

If, by almost discarding substance out of the reasonable part of the world, your lordship means, that I have destroyed, and almost discarded the true idea we have of it, by calling it a substratum*, a supposition of we know not what support of such qualities as are capable of producing simple ideas in us, an obscure and relative idea: † That without knowing what it is, it is that which supports accidents: so that of substance we have no idea of what it is, but only a confused, obscure one of what it does: I must confess, this and the like I have said of our idea of substance: and should be very glad to be convinced by your lordship, or any body else, that I have spoken too meanly of it. He that would show me a more clear and distinct idea of substance, would do me a kindness I should thank him for. But this is the best I can hitherto find, either in my own thoughts, or in the books of logicians: for their account or idea of it is, that it is ens, or res per se subsistens, & substans accidentibus; which in effect is no more, but that substance is a being or thing; or, in short, something, they know not what, or of which they have no clearer idea, than that it is something which supports accidents, or other simple ideas or modes, and is not supported itself, as a mode, or an accident. So that I do not see but Burgersdicius, Sanderson, and the whole tribe of logicians, must be reckoned by the gentlemen of this new way of reasoning, who have almost discarded substance out of the reasonable part of the world.

But supposing, my lord, that I, or these gentlemen, logicians of note in the schools, should own that we have a very imperfect, obscure, inadequate idea of substance, would it not be a little too hard to charge us with discarding substance out of the world? For what almost discarding, and reasonable part of the world, signifies, I must confess I do not clearly comprehend: but let almost and reasonable part signify here what they will, for I dare say your lordship meant something by them; would not your lordship think you were a little hardly dealt with, if, for acknowledging yourself to have a very imperfect and inadequate idea of God, or of several other things which in this very treatise you confess our under-

* B. 2. C. 23. §. 1. §. 2. §. 3. † B. 2. C. 13. §. 19.

body is a thing that is extended, figured, and capable of motion; spirit, a thing capable of thinking; and so hardness, friability, and power to draw iron, we say, are qualities to be found in a loadstone. These, and the like fashions of speaking, intimate, that the substance is supposed always something besides the extension, figure, solidity, motion, thinking, or other observable ideas, though we know not what it is.

No clear idea of substance in general.

§. 4. Hence, when we talk or think of any particular sort of corporeal substances, as horse, stone, &c, though the idea we

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standings come short in, and cannot comprehend, you should be accused to be one of these gentlemen that have almost discarded God, or those other mysterious things, whereof you contend we have very imperfect and inadequate ideas, out of the reasonable world? For I suppose your lordship means by almost discarding out of the reasonable world, something that is blameable, for it seems not to be inserted for a commendation; and yet I think he deserves no blame, who owns the having imperfect, inadequate, obscure ideas, where he has no better; however, if it be inferred from thence, that either he almost excludes those things out of being, or out of rational discourse, if that be meant by the reasonable world; for the first of these will not hold, because the being of things in the world depends not on our ideas: the latter indeed is true in some degree, but it is no fault: for it is certain, that where we have imperfect, inadequate, confused, obscure ideas, we cannot discourse and reason about those things so well, fully, and clearly, as if we had perfect, adequate, clear, and distinct ideas.

Other objections are made against the following parts of this paragraph by that reverend prelate, viz. The repetition of the story of the Indian philosopher, and the talking like children about substance: to which our author replies:

'Your lordship, I must own, with great reason, takes notice that I paralleled more than once our idea of substance with the Indian philosopher's he-knew-not-what, which supported the tortoise, &c.'

This repetition is, I confess, a fault in exact writing: but I have acknowledged and excused it in these words in my preface: 'I am 'not ignorant how little I herein consult my own reputation, when I 'knowingly let my essay go with a fault so apt to disgust the most ju'dicious, who are always the nicest readers.' And there farther add, 'That I did not publish my essay for such great masters of knowledge as 'your lordship; but fitted it to men of my own size, to whom repetitions 'might be sometimes useful.' It would not therefore have been beside your lordship's generosity (who were not intended to be provoked by this repetition) to have passed by such a fault as this, in one who pretends not beyond the lower rank of writers. But I see your lordship would have

have of either of them be but the complication or collection of those several simple ideas of sensible qualities, which we used to find united in the thing called horse or stone; yet because we cannot conceive how they should subsist alone, or one in another, we suppose them existing in and supported by some common subject; which support we denote by the name substance, though it be certain we have no clear or distinct idea of that thing we suppose a support.

§. 5. The same thing happens concerning the operations of the mind, viz. thinking, reasoning, fearing, &c. which we con- As clear an idea of spirit as body.

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me exact, and without any faults; and I wish I could be so, the better to deserve your lordship's approbation.

My saying, 'That when we talk of substance, we talk like children; 'who being asked a question about something which they know not, 'readily give this satisfactory answer, That it is something:' your lordship seems mightily to lay to heart in these words that follow; If this be the truth of the case, we must still talk like children, and I know not how it can be remedied. For if we cannot come at a rational idea of substance, we can have no principle of certainty to go upon in this debate.

If your lordship has any better and distincter idea of substance than mine is, which I have given an account of, your lordship is not at all concerned in what I have there said. But those whose idea of substance, whether a rational or not rational idea, is like mine, something, they know not what, must in that, with me, talk like children, when they speak of something, they know not what. For a philosopher that says, That which supports accidents, is something, he knows not what; and a countryman that says, the foundation of the great church at Harlem is supported by something, he knows not what; and a child that stands in the dark upon his mother's muff, and says he stands upon something, he knows not what, in this respect talk all three alike. But if the countryman knows, that the foundation of the church of Harlem is supported by a rock, as the houses about Bristol are; or by gravel, as the houses about London are; or by wooden piles, as the houses in Amsterdam are; it is plain, that then having a clear and distinct idea of the thing that supports the church, he does not talk of this matter as a child; nor will he of the support of accidents, when he has a clearer and more distinct idea of it, than that it is barely something. But as long as we think like children, in cases where our ideas are no clearer nor distincter than theirs, I agree with your lordship, that I know not how it can be remedied, but that we must talk like them.

Farther, the bishop asks, Whether there be no difference between the bare being of a thing, and its subsistence by itself? To which our au-

cluding not to subsist of themselves, nor apprehending how they can belong to any body, or be produced by it, we are apt to think these the actions of some other substance, which we call spirit; whereby yet it is evident, that having no other idea or notion of matter, but something wherein those many sensible qualities which affect our senses do subsist; by supposing a substance, wherein thinking, knowing, doubting, and a power of moving, &c. do subsist, we have as clear a notion of the substance of spirit, as we have of body: the one being supposed to be (without knowing what it is) the substratum to those simple ideas we have from

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thor answers, Yes*. But what will that do to prove, that upon my principles, we can come to no certainty of reason, that there is any such thing as substance? You seem by this question to conclude, That the idea of a thing that subsists by itself, is a clear and distinct idea of substance; but I beg leave to ask, Is the idea of the manner of subsistence of a thing, the idea of the thing itself? If it be not, we may have a clear and distinct idea of the manner, and yet have none but a very obscure and confused one of the thing. For example; I tell your lordship, that I know a thing that cannot subsist without a support, and I know another thing that does subsist without a support, and say no more of them; can you, by having the clear and distinct ideas of having a support, and not having a support, say, that you have a clear and distinct idea of the thing that I know which has, and of the thing that I know which has not a support? If your lordship can, I beseech you to give me the clear and distinct ideas of these, which I only call by the general name, things, that have or have not supports: for such there are, and such I shall give your lordship clear and distinct ideas of, when you shall please to call upon me for them; though I think your lordship will scarce find them by the general and confused idea of things, nor in the clearer and more distinct idea of having or not having a support.

To show a blind man, that he has no clear and distinct idea of scarlet, I tell him, that his notion of it, that it is a thing or being, does not prove he has any clear or distinct idea of it; but barely that he takes it to be something, he knows not what. He replies, That he knows more than that, v. g. he knows that it subsists, or inheres in another thing; and is there no difference, says he, in your lordship's words, between the bare being of a thing, and its subsistence in another? Yes, say I to him, a great deal, they are very different ideas. But for all that, you have no clear and distinct idea of scarlet, nor such a one as I have, who see and know it, and have another kind of idea of it, besides that of inherence.

* Mr. Locke's 3d letter.

without; and the other supposed (with a like ignorance of what it is) to be the substratum to those operations we experiment in ourselves within. It is plain then, that the idea of corporeal substance in matter is as remote from our conceptions and apprehensions, as that of spiritual substance or spirit; and therefore from our not having any notion of the substance of spirit, we can no more conclude its non-existence, than we can for the same reason deny the existence of body; it being as rational to affirm there is no body, because we have no clear and distinct idea of the substance of matter, as to say there is no spirit, because we have no clear and distinct idea of the substance of a spirit.

§. 6. Whatever therefore be the secret, abstract nature of substance in general, all the ideas we have of particular distinct sorts of substances, are nothing but several combinations of simple ideas, co-existing in such, though unknown, cause of their union, as make the whole subsist of itself. It is by such combinations of simple ideas, and nothing else, that we represent particular sorts of substances to ourselves; such are the ideas we have of their several species in our minds; and such only do we, by their specific names, signify to others, v. g. man, horse, sun, water, iron: upon hearing which words, every one who understands the language, frames in his mind a combination of those several simple ideas, which he has usually observed, or fancied to exist to-

Of the sorts of substances.

Your lordship has the idea of subsisting by itself, and therefore you conclude you have a clear and distinct idea of the thing that subsists by itself; which, methinks, is all one, as if your countryman should say, he hath an idea of a cedar of Lebanon, that it is a tree of a nature to need no prop to lean on for its support; therefore he hath a clear and distinct idea of a cedar of Lebanon; which clear and distinct idea, when he comes to examine, is nothing but a general one of a tree, with which his indetermined idea of a cedar is confounded. Just so is the idea of substance; which, however called clear and distinct, is confounded with the general indetermined idea of something. But suppose that the manner of subsisting by itself gives us a clear and distinct idea of substance, how does that prove, That upon my principles we can come to no certainty of reason, that there is any such thing as substance in the world? Which is the proposition to be proved.

gether under that denomination; all which he supposes to rest in, and be as it were adherent to that unknown common subject, which inheres not in any thing else. Though in the mean time it be manifest, and every one upon inquiry into his own thoughts will find, that he has no other idea of any substance, v. g. let it be gold, horse, iron, man, vitriol, bread, but what he has barely of those sensible qualities, which he supposes to inhere, with a supposition of such a substratum, as gives, as it were, a support to those qualities or simple ideas, which he has observed to exist united together. Thus the idea of the sun, what is it but an aggregate of those several simple ideas, bright, hot, roundish, having a constant regular motion, at a certain distance from us, and perhaps some other? As he who thinks and discourses of the sun, has been more or less accurate in observing those sensible qualities, ideas, or properties, which are in that thing which he calls the sun.

Power a great part of our complex ideas of substances.

§. 7. For he has the perfectest idea of any of the particular sorts of substances, who has gathered and put together most of those simple ideas which do exist in it, among which are to be reckoned its active powers, and passive capacities; which though not simple ideas, yet in this respect, for brevity sake, may conveniently enough be reckoned amongst them. Thus the power of drawing iron, is one of the ideas of the complex one of that substance we call a load-stone; and a power to be so drawn is a part of the complex one we call iron: which powers pass for inherent qualities in those subjects. Because every substance, being as apt, by the powers we observe in it, to change some sensible qualities in other subjects, as it is to produce in us those simple ideas which we receive immediately from it, does, by those new sensible qualities introduced into other subjects, discover to us those powers, which do thereby immediately affect our senses, as regularly as its sensible qualities do it immediately; v. g. we immediately by our senses perceive in fire its heat and colour; which are, if rightly considered, no-

thing but powers in it to produce those ideas in us: we also by our senses perceive the colour and brittleness of charcoal, whereby we come by the knowledge of another power in fire, which it has to change the colour and consistency of wood. By the former, fire immediately, by the latter it mediately discovers to us these several qualities, which therefore we look upon to be a part of the qualities of fire, and so make them a part of the complex idea of it. For all those powers that we take cognizance of, terminating only in the alteration of some sensible qualities in those subjects on which they operate, and so making them exhibit to us new sensible ideas; therefore it is that I have reckoned these powers amongst the simple ideas, which make the complex ones of the sorts of substances; though these powers, considered in themselves, are truly complex ideas. And in this looser sense I crave leave to be understood, when I name any of these potentialities among the simple ideas, which we recollect in our minds when we think of particular substances. For the powers that are severally in them are necessary to be considered, if we will have true distinct notions of the several sorts of substances.

§. 8. Nor are we to wonder, that powers make a great part of our complex ideas of substances: since their secondary qualities are those, which in most of them serve principally to distinguish substances one from another, and commonly make a considerable part of the complex idea of the several sorts of them. For our senses failing us in the discovery of the bulk, texture, and figure of the minute parts of bodies, on which their real constitutions and differences depend, we are fain to make use of their secondary qualities, as the characteristical notes and marks, whereby to frame ideas of them in our minds, and distinguish them one from another. All which secondary qualities, as has been shown, are nothing but bare powers. For the colour and taste of opium are, as well as its soporific or anodyne virtues, mere powers depending on its primary qualities, whereby it is

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fitted to produce different operations on different parts of our bodies.

Three sorts of ideas make our complex ones of substances.

§. 9. The ideas that make our complex ones of corporeal substances, are of these three sorts. First, the ideas of the primary qualities of things which are discovered by our senses, and are in them even when we perceive them not; such are the bulk, figure, number, situation, and motion of the parts of bodies, which are really in them, whether we take notice of them or no. Secondly, the sensible secondary qualities, which depending on these, are nothing but the powers those substances have to produce several ideas in us by our senses; which ideas are not in the things themselves, otherwise than as any thing is in its cause. Thirdly, the aptness we consider in any substance to give or receive such alterations of primary qualities, as that the substance so altered should produce in us different ideas from what it did before; these are called active and passive powers: all which powers, as far as we have any notice or notion of them, terminate only in sensible simple ideas. For whatever alteration a loadstone has the power to make in the minute particles of iron, we should have no notion of any power it had at all to operate on iron, did not its sensible motion discover it: and I doubt not, but there are a thousand changes, that bodies we daily handle have a power to cause in one another, which we never suspect, because they never appear in sensible effects.

Powers make a great part of our complex ideas of substances.

§. 10. Powers therefore justly make a great part of our complex ideas of substances. He that will examine his complex idea of gold, will find several of its ideas that make it up to be only powers: as the power of being melted, but of not spending itself in the fire; of being dissolved in aqua regia; are ideas as necessary to make up our complex idea of gold, as its colour and weight: which, if duly considered, are also nothing but different powers. For to speak truly, yellowness is not actually in gold; but is a power in gold to produce that idea in us by our eyes, when placed in

a due light: and the heat, which we cannot leave out of our ideas of the sun, is no more really in the sun, than the white colour it introduces into wax. These are both equally powers in the sun, operating, by the motion and figure of its sensible parts, so on a man, as to make him have the idea of heat; and so on wax, as to make it capable to produce in a man the idea of white.

The now secondary qualities of bodies would disappear, if we could discover the primaryones of their minute parts.

§. 11. Had we senses acute enough to discern the minute particles of bodies, and the real constitution on which their sensible qualities depend, I doubt not but they would produce quite different ideas in us; and that which is now the yellow colour of gold, would then disappear, and instead of it we should see an admirable texture of parts of a certain size and figure. This microscopes plainly discover to us; for what to our naked eyes produces a certain colour, is, by thus augmenting the acuteness of our senses, discovered to be quite a different thing; and the thus altering, as it were, the proportion of the bulk of the minute parts of a coloured object to our usual sight, produces different ideas from what it did before. Thus sand or pounded glass, which is opake, and white to the naked eye, is pellucid in a microscope; and a hair seen this way, loses its former colour, and is in a great measure pellucid, with a mixture of some bright sparkling colours, such as appear from the refraction of diamonds, and other pellucid bodies. Blood to the naked eye appears all red; but by a good microscope, wherein its lesser parts appear, shows only some few globules of red, swimming in a pellucid liquor: and how these red globules would appear, if glasses could be found that could yet magnify them a thousand or ten thousand times more, is uncertain.

Our faculties of discovery suited to our state.

§. 12. The infinitely wise contriver of us, and all things about us, hath fitted our senses, faculties, and organs, to the conveniencies of life, and the business we have to do here. We are able, by our senses, to know and distinguish things; and to examine them so far, as to

apply them to our uses, and several ways to accommodate the exigencies of this life. We have insight enough into their admirable contrivances and wonderful effects, to admire and magnify the wisdom, power, and goodness of their author. Such a knowledge as this, which is suited to our present condition, we want not faculties to attain. But it appears not, that God intended we should have a perfect, clear, and adequate knowledge of them: that perhaps is not in the comprehension of any finite being. We are furnished with faculties (dull and weak as they are) to discover enough in the creatures, to lead us to the knowledge of the Creator, and the knowledge of our duty: and we are fitted well enough with abilities to provide for the conveniencies of living: these are our business in this world. But were our senses altered, and made much quicker and acuter, the appearance and outward scheme of things would have quite another face to us; and, I am apt to think, would be inconsistent with our being, or at least well-being, in this part of the universe which we inhabit. He that considers how little our constitution is able to bear a remove into parts of this air, not much higher than that we commonly breathe in, will have reason to be satisfied, that in this globe of earth allotted for our mansion, the all-wise Architect has suited our organs, and the bodies that are to affect them, one to another. If our sense of hearing were but one thousand times quicker than it is, how would a perpetual noise distract us? And we should in the quietest retirement be less able to sleep or meditate, than in the middle of a sea-fight. Nay, if that most instructive of our senses, seeing, were in any man a thousand or a hundred thousand times more acute than it is by the best microscope, things several millions of times less than the smallest object of his sight now, would then be visible to his naked eyes, and so he would come nearer to the discovery of the texture and motion of the minute parts of corporeal things; and in many of them, probably get ideas of their internal constitutions. But then he would be in a quite different world from other people: nothing would appear

the same to him, and others; the visible ideas of every thing would be different. So that I doubt, whether he and the rest of men could discourse concerning the objects of sight, or have any communication about colours, their appearances being so wholly different. And perhaps such a quickness and tenderness of sight could not endure bright sun-shine, or so much as open day-light; nor take in but a very small part of any object at once, and that too only at a very near distance. And if, by the help of such microscopical eyes (if I may so call them), a man could penetrate farther than ordinary into the secret composition and radical texture of bodies, he would not make any great advantage by the change, if such an acute sight would not serve to conduct him to the market and exchange; if he could not see things he was to avoid, at a convenient distance; nor distinguish things he had to do with, by those sensible qualities others do. He that was sharp-sighted enough to see the configuration of the minute particles of the spring of a clock, and observe upon what peculiar structure and impulse its elastic motion depends, would no doubt discover something very admirable: but if eyes so framed could not view at once the hand, and the characters of the hour-plate, and thereby at a distance see what o'clock it was, their owner could not be much benefited by that acuteness; which, whilst it discovered the secret contrivance of the parts of the machine, made him lose its use.

§. 13. And here give me leave to propose an extravagant conjecture of mine, viz. that since we have some reason (if there be any credit to be given to the report of things, that our philosophy cannot account for) to imagine, that spirits can assume to themselves bodies of different bulk, figure, and conformation of parts; whether one great advantage some of them have over us, may not lie in this, that they can so frame and shape to themselves organs of sensation or perception, as to suit them to their present design, and the circumstances of the object they would consider. For how much would that man exceed all others in knowledge, who had but the

Conjecture about spirits.

faculty so to alter the structure of his eyes, that one sense, as to make it capable of all the several degrees of vision which the assistance of glasses (casually at first lighted on) has taught us to conceive? What wonders would he discover, who could so fit his eyes to all sorts of objects, as to see, when he pleased, the figure and motion of the minute particles in the blood, and other juices of animals, as distinctly as he does, at other times, the shape and motion of the animals themselves? But to us, in our present state, unalterable organs so contrived, as to discover the figure and motion of the minute parts of bodies, whereon depend those sensible qualities we now observe in them, would perhaps be of no advantage. God has, no doubt, made them so, as is best for us in our present condition. He hath fitted us for the neighbourhood of the bodies that surround us, and we have to do with: and though we cannot, by the faculties we have, attain to a perfect knowledge of things, yet they will serve us well enough for those ends above-mentioned, which are our great concernment. I beg my reader's pardon for laying before him so wild a fancy, concerning the ways of perception in beings above us; but how extravagant soever it be, I doubt whether we can imagine any thing about the knowledge of angels, but after this manner, some way or other in proportion to what we find and observe in ourselves. And though we cannot but allow that the infinite power and wisdom of God may frame creatures with a thousand other faculties and ways of perceiving things without them, than what we have: yet our thoughts can go no farther than our own: so impossible it is for us to enlarge our very guesses beyond the ideas received from our own sensation and reflection. The supposition at least, that angels do sometimes assume bodies, needs not startle us; since some of the most ancient and most learned fathers of the church seemed to believe, that they had bodies: and this is certain, that their state and way of existence is unknown to us.

Complex ideas of substances.

§. 14. But to return to the matter in hand, the ideas we have of substances, and the ways we come by them; I say, our spe-

cific ideas of substances are nothing else but a collection of a certain number of simple ideas, considered as united in one thing. These ideas of substances, though they are commonly simple apprehensions, and the names of them simple terms; yet in effect are complex and compounded. Thus the idea which an Englishman signifies by the name Swan, is white colour, long neck, red beak, black legs, and whole feet, and all these of a certain size, with a power of swimming in the water, and making a certain kind of noise: and perhaps, to a man who has long observed this kind of birds, some other properties which all terminate in sensible simple ideas, all united in one common subject.

Idea of spiritual substances as clear as of bodily substances.

§. 15. Besides the complex ideas we have of material sensible substances, of which I have last spoken, by the simple ideas we have taken from those operations of our own minds, which we experiment daily in ourselves, as thinking, understanding, willing, knowing, and power of beginning motion, &c. co-existing in some substance: we are able to frame the complex idea of an immaterial spirit. And thus by putting together the ideas of thinking, perceiving, liberty, and power of moving themselves, and other things, we have as clear a perception and notion of immaterial substances, as we have of material. For putting together the ideas of thinking and willing, or the power of moving or quieting corporeal motion, joined to substance of which we have no distinct idea, we have the idea of an immaterial spirit; and by putting together the ideas of coherent solid parts, and a power of being moved, joined with substance, of which likewise we have no positive idea, we have the idea of matter. The one is as clear and distinct an idea as the other: the idea of thinking, and moving a body, being as clear and distinct ideas, as the ideas of extension, solidity, and being moved. For our idea of substance is equally obscure, or none at all in both: it is but a supposed I know not what, to support those ideas we call accidents. It is for want of reflection that we are apt to think, that our senses show us nothing but

material things. Every act of sensation, when duly considered, gives us an equal view of both parts of nature, the corporeal and spiritual. For whilst I know, by seeing or hearing, &c. that there is some corporeal being without me, the object of that sensation; I do more certainly know, that there is some spiritual being within me, that sees and hears. This, I must be convinced, cannot be the action of bare insensible matter; nor ever could be, without an immaterial thinking being.

No idea of abstract substance.

§. 16. By the complex idea of extended, figured, coloured, and all other sensible qualities, which is all that we know of it, we are as far from the idea of the substance of body, as if we knew nothing at all: nor after all the acquaintance and familiarity, which we imagine we have with matter, and the many qualities men assure themselves they perceive and know in bodies, will it perhaps upon examination be found that they have any more, or clearer, primary ideas belonging to body, than they have belonging to immaterial spirit.

The cohesion of solid parts and impulse the primary ideas of body.

§. 17. The primary ideas we have peculiar to body, as contradistinguished to spirit, are the cohesion of solid, and consequently separable, parts, and a power of communicating motion by impulse. These, I think, are the original ideas proper and peculiar to body; for figure is but the consequence of finite extension.

Thinking and motivity the primary ideas of spirit.

§. 18. The ideas we have belonging, and peculiar to spirit, are thinking and will, or a power of putting body into motion by thought, and which is consequent to it, liberty. For as body cannot but communicate its motion by impulse to another body, which it meets with at rest; so the mind can put bodies into motion, or forbear to do so, as it pleases. The ideas of existence, duration, and mobility, are common to them both.

Spirits capable of motion.

§. 19. There is no reason why it should be thought strange, that I make mobility belong to spirit; for having no other

idea of motion, but change of distance with other beings that are considered as at rest; and finding, that spirits, as well as bodies, cannot operate but where they are, and that spirits do operate at several times in several places; I cannot but attribute change of place to all finite spirits; (for of the infinite spirit I speak not here.) For my soul being a real being, as well as my body, is certainly as capable of changing distance with any other body, or being, as body itself; and so is capable of motion. And if a mathematician can consider a certain distance, or a change of that distance between two points, one may certainly conceive a distance, and a change of distance between two spirits: and so conceive their motion, their approach or removal, one from another.

§. 20. Every one finds in himself, that his soul can think, will, and operate on his body in the place where that is; but cannot operate on a body, or in a place an hundred miles distant from it. Nobody can imagine that *his soul* can think, or move a body at Oxford, *whilst he* is at London; and cannot but know, that, being united to his body, it constantly changes place all the whole journey between Oxford and London, as the coach or horse does that carries him, and I think may be said to be truly all that while in motion; or if that will not be allowed to afford us a clear idea enough of its motion, its being separated from the body in death, I think, will; for to consider it as going out of the body, or leaving it, and yet to have no idea of its motion, seems to me impossible.

§. 21. If it be said by any one, that it cannot change place, because it hath none, for the spirits are not in loco, but ubi; I suppose that way of talking will not now be of much weight to many, in an age that is not much disposed to admire, or suffer themselves to be deceived by such unintelligible ways of speaking. But if any one thinks there is any sense in that distinction, and that it is applicable to our present purpose, I desire him to put it into intelligible English; and then from thence draw a reason to show, that immaterial spirits are not capable of motion. Indeed motion cannot be

attributed to God; not because he is an immaterial, but because he is an infinite spirit.

Idea of soul and body compared.

§. 22. Let us compare then our complex idea of an immaterial spirit with our complex idea of body, and see whether there be any more obscurity in one than in the other, and in which most. Our idea of body, as I think, is an extended solid substance, capable of communicating motion by impulse: and our idea of soul, as an immaterial spirit, is of a substance that thinks, and has a power of exciting motion in body, by willing or thought. These, I think, are our complex ideas of soul and body, as contra-distinguished; and now let us examine which has most obscurity in it, and difficulty to be apprehended. I know, that people, whose thoughts are immersed in matter, and have so subjected their minds to their senses, that they seldom reflect on any thing beyond them, are apt to say, they cannot comprehend a thinking thing, which perhaps is true: but I affirm, when they consider it well, they can no more comprehend an extended thing.

Cohesion of solid parts in body as hard to be conceived as thinking in a soul.

§. 23. If any one say, he knows not what it is thinks in him; he means, he knows not what the substance is of that thinking thing: no more, say I, knows he what the substance is of that solid thing. Farther, if he says he knows not how he thinks: I answer, neither knows he how he is extended; how the solid parts of body are united, or cohere together to make extension. For though the pressure of the particles of air may account for the cohesion of several parts of matter, that are grosser than the particles of air, and have pores less than the corpuscles of air; yet the weight, or pressure of the air, will not explain, nor can be a cause of the coherence of the particles of air themselves. And if the pressure of the æther, or any subtiler matter than the air, may unite, and hold fast together the parts of a particle of air, as well as other bodies; yet it cannot make bonds for itself, and hold together the parts that make up every the least corpuscle of that materia

subtilis. So that the hypothesis, how ingeniously soever explained, by showing, that the parts of sensible bodies are held together by the pressure of other external insensible bodies, reaches not the parts of the æther itself; and by how much the more evident it proves, that the parts of other bodies are held together by the external pressure of the æther, and can have no other conceivable cause of their cohesion and union, by so much the more it leaves us in the dark concerning the cohesion of the parts of the corpuscles of the æther itself; which we can neither conceive without parts, they being bodies, and divisible; nor yet how their parts cohere, they wanting that cause of cohesion, which is given of the cohesion of the parts of all other bodies.

§. 24. But, in truth, the pressure of any ambient fluid, how great soever, can be no intelligible cause of the cohesion of the solid parts of matter. For though such a pressure may hinder the avulsion of two polished superficies, one from another, in a line perpendicular to them, as in the experiment of two polished marbles; yet it can never, in the least, hinder the separation by a motion, in a line parallel to those surfaces. Because the ambient fluid, having a full liberty to succeed in each point of space, deserted by a lateral motion, resists such a motion of bodies so joined, no more than it would resist the motion of that body, were it on all sides environed by that fluid, and touched no other body: and therefore, if there were no other cause of cohesion, all parts of bodies must be easily separable by such a lateral sliding motion. For if the pressure of the æther be the adequate cause of cohesion, wherever that cause operates not, there can be no cohesion. And since it cannot operate against such a lateral separation, (as has been shown) therefore in every imaginary plane, intersecting any mass of matter, there could be no more cohesion, than of two polished surfaces, which will always, notwithstanding any imaginable pressure of a fluid, easily slide one from another. So that, perhaps, how clear an idea soever we think we have of the extension of body, which is nothing but the cohesion of

solid parts, he that shall well consider it in his mind, may have reason to conclude, that it is as easy for him to have a clear idea, how the soul thinks, as how body is extended. For since body is no farther, nor otherwise extended, than by the union and cohesion of its solid parts, we shall very ill comprehend the extension of body, without understanding wherein consists the union and cohesion of its parts; which seems to me as incomprehensible, as the manner of thinking, and how it is performed.

§. 25. I allow it is usual for most people to wonder how any one should find a difficulty in what they think they every day observe. Do we not see, will they be ready to say, the parts of bodies stick firmly together? Is there any thing more common? And what doubt can there be made of it? And the like, I say, concerning thinking and voluntary motion: Do we not every moment experiment it in ourselves? and therefore can it be doubted? The matter of fact is clear, I confess; but when we would a little nearer look into it, and consider how it is done, there I think we are at a loss, both in the one, and the other; and can as little understand how the parts of body cohere, as how we ourselves perceive, or move. I would have any one intelligibly explain to me, how the parts of gold, or brass, (that but now in fusion were as loose from one another, as the particles of water, or the sands of an hour-glass) come in a few moments to be so united, and adhere so strongly one to another, that the utmost force of men's arms cannot separate them: a considering man will, I suppose, be here at a loss, to satisfy his own, or another man's understanding.

§. 26. The little bodies that compose that fluid we call water, are so extremely small, that I have never heard of any one, who by a microscope (and yet I have heard of some that have magnified to ten thousand; nay, to much above a hundred thousand times) pretended to perceive their distinct bulk, figure, or motion: and the particles of water are also so perfectly loose one from another, that the least force sensibly separates them. Nay, if we consider their perpetual

motion, we must allow them to have no cohesion one with another; and yet let but a sharp cold come, they unite, they consolidate, these little atoms cohere, and are not, without great force, separable. He that could find the bonds that tie these heaps of loose little bodies together so firmly; he that could make known the cement that makes them stick so fast one to another; would discover a great, and yet unknown secret: and yet when that was done, would he be far enough from making the extension of body (which is the cohesion of its solid parts) intelligible, till he could show wherein consisted the union, or consolidation of the parts of those bonds, or of that cement, or of the least particle of matter that exists. Whereby it appears, that this primary and supposed obvious quality of body will be found, when examined, to be as incomprehensible as any thing belonging to our minds, and a solid extended substance as hard to be conceived as a thinking immaterial one, whatever difficulties some would raise against it.

§. 27. For, to extend our thoughts a little farther, that pressure, which is brought to explain the cohesion of bodies, is as unintelligible as the cohesion itself. For if matter be considered, as no doubt it is, finite, let any one send his contemplation to the extremities of the universe, and there see what conceivable hoops, what bond he can imagine to hold this mass of matter in so close a pressure together; from whence steel has its firmness, and the parts of a diamond their hardness and indissolubility. If matter be finite, it must have its extremes; and there must be something to hinder it from scattering asunder. If, to avoid this difficulty, any one will throw himself into the supposition and abyss of infinite matter, let him consider what light he thereby brings to the cohesion of body, and whether he be ever the nearer making it intelligible, by resolving it into a supposition, the most absurd and most incomprehensible of all other: So far is our extension of body (which is nothing but the cohesion of solid parts) from being clearer, or more distinct, when we

would inquire into the nature, cause, or manner of it, than the idea of thinking.

Communication of motion by impulse, or by thought, equally intelligible.

§. 28. Another idea we have of body is the power of communication of motion by impulse: and of our souls, the power of exciting motion by thought. These ideas, the one of body, the other of our minds, every day's experience clearly furnishes us with: but if here again we inquire how this is done, we are equally in the dark. For to the communication of motion by impulse, wherein as much motion is lost to one body as is got to the other, which is the ordinariest case, we can have no other conception, but of the passing of motion out of one body into another: which, I think, is as obscure and unconceivable, as how our minds move or stop our bodies by thought, which we every moment find they do. The increase of motion by impulse, which is observed or believed sometimes to happen, is yet harder to be understood. We have by daily experience clear evidence of motion produced both by impulse and by thought; but the manner how, hardly comes within our comprehension: we are equally at a loss in both. So that however we consider motion, and its communication, either from body or spirit, the idea which belongs to spirit is at least as clear as that which belongs to body. And if we consider the active power of moving, or, as I may call it, motivity, it is much clearer in spirit than body; since two bodies, placed by one another at rest, will never afford us the idea of a power in the one to move the other, but by a borrowed motion: whereas the mind, every day, affords us ideas of an active power of moving of bodies; and therefore it is worth our consideration, whether active power be not the proper attribute of spirits, and passive power of matter. Hence may be conjectured, that created spirits are not totally separate from matter, because they are both active and passive. Pure spirit, viz. God, is only active; pure matter is only passive; those beings that are both active and passive, we may judge to partake of both. But be that as it will, I

think, we have as many, and as clear ideas belonging to spirit, as we have belonging to body, the substance of each being equally unknown to us, and the idea of thinking in spirit as clear as of extension in body; and the communication of motion by thought, which we attribute to spirit, is as evident as that by impulse, which we ascribe to body. Constant experience makes us sensible of both these, though our narrow understandings can comprehend neither. For when the mind would look beyond those original ideas we have from sensation or reflection, and penetrate into their causes, and manner of production, we find still it discovers nothing but its own short-sightedness.

§. 29. To conclude; sensation convinces us, that there are solid extended substances; and reflection, that there are thinking ones: experience assures us of the existence of such beings; and that the one hath a power to move body by impulse, the other by thought; this we cannot doubt of. Experience, I say, every moment furnishes us with the clear ideas, both of the one and the other. But beyond these ideas, as received from their proper sources, our faculties will not reach. If we would inquire farther into their nature, causes, and manner, we perceive not the nature of extension clearer than we do of thinking. If we would explain them any farther, one is as easy as the other; and there is no more difficulty to conceive how a substance we know not should by thought set body into motion, than how a substance we know not should by impulse set body into motion. So that we are no more able to discover wherein the ideas belonging to body consist, than those belonging to spirit. From whence it seems probable to me, that the simple ideas we receive from sensation and reflection are the boundaries of our thoughts; beyond which the mind, whatever efforts it would make, is not able to advance one jot; nor can it make any discoveries, when it would pry into the nature and hidden causes of those ideas.

§. 30. So that, in short, the idea we have of spirit, compared with the idea we have of body, stands thus: the substance of spi- Idea of body and spirit compared.

rit is unknown to us; and so is the substance of body equally unknown to us. Two primary qualities or properties of body, viz. solid coherent parts and impulse, we have distinct clear ideas of: so likewise we know, and have distinct clear ideas of two primary qualities or properties of spirit, viz. thinking and a power of action; i. e. a power of beginning or stopping several thoughts or motions. We have also the ideas of several qualities inherent in bodies, and have the clear distinct ideas of them; which qualities are but the various modifications of the extension of cohering solid parts, and their motion. We have likewise the ideas of the several modes of thinking, viz. believing, doubting, intending, fearing, hoping; all which are but the several modes of thinking. We have also the ideas of willing, and moving the body consequent to it, and with the body itself too; for, as has been shown, spirit is capable of motion.

The notion of spirit involves no more difficulty in it than that of body.

§. 31. Lastly, if this notion of immaterial spirit may have perhaps some difficulties in it not easy to be explained, we have therefore no more reason to deny or doubt the existence of such spirits than we have to deny or doubt the existence of body; because the notion of body is cumbered with some difficulties very hard, and perhaps impossible to be explained or understood by us. For I would fain have instanced any thing in our notion of spirit more perplexed, or nearer a contradiction, than the very notion of body includes in it: the divisibility in infinitum of any finite extension involving us, whether we grant or deny it, in consequences impossible to be explicated or made in our apprehensions consistent; consequences that carry greater difficulty, and more apparent absurdity, than any thing can follow from the notion of an immaterial knowing substance.

We know nothing beyond our simple ideas.

§. 32. Which we are not at all to wonder at, since we having but some few superficial ideas of things, discovered to us only by the senses from without, or by the mind, reflecting on what it experiments in itself with-

in, have no knowledge beyond that, much less of the internal constitution, and true nature of things, being destitute of faculties to attain it. And therefore experimenting and discovering in ourselves knowledge, and the power of voluntary motion, as certainly as we experiment, or discover in things without us, the cohesion and separation of solid parts, which is the extension and motion of bodies; we have as much reason to be satisfied with our notion of immaterial spirit, as with our notion of body, and the existence of the one as well as the other. For it being no more a contradiction that thinking should exist, separate and independent from solidity, than it is a contradiction that solidity should exist, separate and independent from thinking, they being both but simple ideas, independent one from another; and having as clear and distinct ideas in us of thinking, as of solidity: I know not why we may not as well allow a thinking thing without solidity, i. e. immaterial, to exist, as a solid thing without thinking, i. e. matter, to exist; especially since it is not harder to conceive how thinking should exist without matter, than how matter should think. For whensoever we would proceed beyond these simple ideas we have from sensation and reflection, and dive farther into the nature of things, we fall presently into darkness and obscurity, perplexedness and difficulties; and can discover nothing farther but our own blindness and ignorance. But whichever of these complex ideas be clearest, that of body, or immaterial spirit, this is evident, that the simple ideas that make them up are no other than what we have received from sensation or reflection: and so is it of all our other ideas of substances, even of God himself.

Idea of God.

§. 33. For if we examine the idea we have of the incomprehensible supreme being, we shall find, that we come by it the same way; and that the complex ideas we have both of God and separate spirits are made up of the simple ideas we receive from reflection: v. g. having, from what we experiment in ourselves, got the ideas of existence and duration; of knowledge and power; of pleasure and happiness; and of several other qualities and powers,

which it is better to have than to be without: when we would frame an idea the most suitable we can to the supreme being, we enlarge every one of these with our idea of infinity; and so putting them together, make our complex idea of God. For that the mind has such a power of enlarging some of its ideas, received from sensation and reflection, has been already shown.

§. 34. If I find that I know some few things, and some of them, or all, perhaps imperfectly, I can frame an idea of knowing twice as many; which I can double again, as often as I can add to number; and thus enlarge my idea of knowledge, by extending its comprehension to all things existing, or possible. The same also I can do of knowing them more perfectly; i. e. all their qualities, powers, causes, consequences, and relations, &c. till all be perfectly known that is in them, or can any way relate to them; and thus frame the idea of infinite or boundless knowledge. The same may also be done of power, till we come to that we call infinite; and also of the duration of existence without beginning or end; and so frame the idea of an eternal being. The degrees or extent wherein we ascribe existence, power, wisdom, and all other perfections (which we can have any ideas of) to that sovereign being which we call God, being all boundless and infinite, we frame the best idea of him our minds are capable of: all which is done, I say, by enlarging those simple ideas we have taken from the operations of our own minds, by reflection; or by our senses, from exterior things; to that vastness to which infinity can extend them.

Idea of God. §. 35. For it is infinity, which joined to our ideas of existence, power, knowledge, &c. makes that complex idea, whereby we represent to ourselves, the best we can, the supreme being. For though in his own essence (which certainly we do not know, not knowing the real essence of a pebble, or a fly, or of our own selves) God be simple and uncompounded; yet, I think, I may say we have no other idea of him but a complex one of existence, knowledge,

power, happiness, &c. infinite and eternal: which are all distinct ideas, and some of them, being relative, are again compounded of others; all which being, as has been shown, originally got from sensation and reflection, go to make up the idea or notion we have of God.

No idea in our complex one of spirits, but those got from sensation or reflection.

§. 36. This farther is to be observed, that there is no idea we attribute to God, bating infinity, which is not also a part of our complex idea of other spirits. Because being capable of no other simple ideas, belonging to any thing but body, but those which by reflection we receive from the operation of our own minds, we can attribute to spirits no other but what we receive from thence: and all the difference we can put between them in our contemplation of spirits, is only in the several extents and degrees of their knowledge, power, duration, happiness, &c. For that in our ideas, as well of spirits, as of other things, we are restrained to those we receive from sensation and reflection, is evident from hence, that in our ideas of spirits, how much soever advanced in perfection beyond those of bodies, even to that of infinite, we cannot yet have any idea of the manner wherein they discover their thoughts one to another: though we must necessarily conclude, that separate spirits, which are beings that have perfecter knowledge and greater happiness than we, must needs have also a perfecter way of communicating their thoughts than we have, who are fain to make use of corporeal signs and particular sounds; which are therefore of most general use, as being the best and quickest we are capable of. But of immediate communication, having no experiment in ourselves, and consequently no notion of it at all, we have no idea how spirits, which use not words, can with quickness, or much less how spirits, that have no bodies, can be masters of their own thoughts, and communicate or conceal them at pleasure, though we cannot but necessarily suppose they have such a power.

Recapitulation.

§. 37. And thus we have seen, what kind of ideas we have of substances of all kinds,

wherein they consist, and how we came by them. From whence, I think, it is very evident,

First, That all our ideas of the several sorts of substances are nothing but collections of simple ideas, with a supposition of something to which they belong, and in which they subsist; though of this supposed something we have no clear distinct idea at all.

Secondly, That all the simple ideas, that thus united in one common substratum make up our complex ideas of several sorts of substances, are no other but such as we have received from sensation or reflection. So that even in those which we think we are most intimately acquainted with, and that come nearest the comprehension of our most enlarged conceptions, we cannot go beyond those simple ideas. And even in those which seem most remote from all we have to do with, and do infinitely surpass any thing we can perceive in ourselves by reflection, or discover by sensation in other things, we can attain to nothing but those simple ideas, which we originally received from sensation or reflection; as is evident in the complex ideas we have of angels, and particularly of God himself.

Thirdly, That most of the simple ideas, that make up our complex ideas of substances, when truly considered, are only powers, however we are apt to take them for positive qualities; v. g. the greatest part of the ideas that make our complex idea of gold are yellowness, great weight, ductility, fusibility and solubility in aqua regia, &c. all united together in an unknown substratum: all which ideas are nothing else but so many relations to other substances, and are not really in the gold, considered barely in itself, though they depend on those real and primary qualities of its internal constitution, whereby it has a fitness differently to operate, and be operated on by several other substances.

CHAP. XXIV.

Of collective Ideas of Substances.

§. 1. BESIDES these complex ideas of several single substances, as of man, horse, gold, violet, apple, &c. the mind hath also complex collective ideas of substances; which I so call, because such ideas are made up of many particular substances considered together, as united into one idea, and which so joined are looked on as one; v. g. the idea of such a collection of men as make an army, though consisting of a great number of distinct substances, is as much one idea, as the idea of a man: and the great collective idea of all bodies whatsoever, signified by the name world, is as much one idea, as the idea of any the least particle of matter in it; it sufficing to the unity of any idea, that it be considered as one representation or picture, though made up of ever so many particulars. One idea.

§. 2. These collective ideas of substances the mind makes by its power of composition, and uniting severally either simple or complex ideas into one, as it does by the same faculty make the complex ideas of particular substances, consisting of an aggregate of divers simple ideas, united in one substance; and as the mind, by putting together the repeated ideas of unity, makes the collective mode, or complex idea of any number, as a score, or a gross, &c. so by putting together several particular substances, it makes collective ideas of substances, as a troop, an army, a swarm, a city, a fleet; each of which, every one finds, that he represents to his own mind by one idea, in one view; and so under that notion considers those several things as perfectly one, as one ship, or one atom. Nor is it harder to conceive, how an army of ten thousand men should make one idea, than how a man should make one idea: it being as easy to the mind to unite into one the idea of a great Made by the power of composing in the mind.

number of men, and consider it as one, as it is to unite into one particular all the distinct ideas that make up the composition of a man, and consider them all together as one.

All artificial things are collective ideas.

§. 3. Amongst such kind of collective ideas, are to be counted most part of artificial things, at least such of them as are made up of distinct substances: and, in truth, if we consider all these collective ideas aright, as army, constellation, universe, as they are united into so many single ideas, they are but the artificial draughts of the mind; bringing things very remote, and independent on one another, into one view, the better to contemplate and discourse of them, united into one conception, and signified by one name. For there are no things so remote, nor so contrary, which the mind cannot, by this art of composition, bring into one idea; as is visible in that signified by the universe.

CHAP. XXV.

Of Relation.

Relation what.

§. 1. BESIDES the ideas, whether simple or complex, that the mind has of things, as they are in themselves, there are others it gets from their comparison one with another. The understanding, in the consideration of any thing, is not confined to that precise object: it can carry any idea as it were beyond itself, or at least look beyond it, to see how it stands in conformity to any other. When the mind so considers one thing, that it does as it were bring it to and set it by another, and carry its view from one to the other: this is, as the words import, relation and respect; and the denominations given to positive things, intimating that respect, and serving as marks to lead the thoughts beyond the subject itself denominated to something distinct from it, are what we call relatives: and the things, so brought

together, related. Thus, when the mind considers Caius as such a positive being, it takes nothing into that idea, but what really exists in Caius; v. g. when I consider him as a man, I have nothing in my mind but the complex idea of the species, man. So likewise, when I say Caius is a white man, I have nothing but the bare consideration of a man who hath that white colour. But when I give Caius the name husband, I intimate some other person; and when I give him the name whiter, I intimate some other thing: in both cases my thought is led to something beyond Caius, and there are two things brought into consideration. And since any idea, whether simple or complex, may be the occasion why the mind thus brings two things together, and as it were takes a view of them at once, though still considered as distinct; therefore any of our ideas may be the foundation of relation. As in the above-mentioned instance, the contract and ceremony of marriage with Sempronia is the occasion of the denomination or relation of husband; and the colour white the occasion why he is said to be whiter than free-stone.

Relations without correlative terms not easily perceived.

§. 2. These, and the like relations, expressed by relative terms, that have others answering them, with a reciprocal intimation, as father and son, bigger and less, cause and effect, are very obvious to every one, and every body at first sight perceives the relation. For father and son, husband and wife, and such other correlative terms, seem so nearly to belong one to another, and through custom do so readily chime and answer one another in people's memories, that, upon the naming of either of them, the thoughts are presently carried beyond the thing so named; and nobody overlooks or doubts of a relation, where it is so plainly intimated. But where languages have failed to give correlative names, there the relation is not always so easily taken notice of. Concubine is, no doubt, a relative name, as well as wife: but in languages where this, and the like words, have not a correlative term, there people are not so apt to take them

to be so, as wanting that evident mark of relation which is between correlatives, which seem to explain one another, and not to be able to exist, but together. Hence it is, that many of those names which, duly considered, do include evident relations, have been called external denominations. But all names, that are more than empty sounds, must signify some idea, which is either in the thing to which the name is applied; and then it is positive, and is looked on as united to, and existing in the thing to which the denomination is given: or else it arises from the respect the mind finds in it to something distinct from it, with which it considers it; and then it concludes a relation.

Some seemingly absolute terms contain relations.

§. 3. Another sort of relative terms there is, which are not looked on to be either relative, or so much as external denominations; which yet, under the form and appearance of signifying something absolute in the subject, do conceal a tacit, though less observable relation. Such are the seemingly positive terms of old, great, imperfect, &c. whereof I shall have occasion to speak more at large in the following chapters.

Relation different from the things related.

§. 4. This farther may be observed, that the ideas of relation may be the same in men, who have far different ideas of the things that are related, or that are thus compared; v. g. those who have far different ideas of a man, may yet agree in the notion of a father: which is a notion superinduced to the substance, or man, and refers only to an act of that thing called man, whereby he contributed to the generation of one of his own kind, let man be what it will.

Change of relation may be without any change in the subject.

§. 5. The nature therefore of relation consists in the referring or comparing two things one to another; from which comparison, one or both comes to be denominated. And if either of those things be removed or cease to be, the relation ceases, and the denomination consequent to it, though the other receive in itself no alteration at all: v. g. Caius, whom I consider to-day as a father, ceases to be so to-morrow, only

by the death of his son, without any alteration made in himself. Nay, barely by the mind's changing the object to which it compares any thing, the same thing is capable of having contrary denominations at the same time: v. g. Caius, compared to several persons, may truly be said to be older and younger, stronger and weaker, &c.

Relation only betwixt two things.

§. 6. Whatsoever doth or can exist, or be considered as one thing, is positive; and so not only simple ideas and substances, but modes also, are positive beings: though the parts of which they consist are very often relative one to another; but the whole together considered as one thing, producing in us the complex idea of one thing, which idea is in our minds, as one picture, though an aggregate of divers parts, and under one name, it is a positive or absolute thing, or idea. Thus a triangle, though the parts thereof compared one to another be relative, yet the idea of the whole is a positive absolute idea. The same may be said of a family, a tune, &c. for there can be no relation, but betwixt two things considered as two things. There must always be in relation two ideas, or things, either in themselves really separate, or considered as distinct, and then a ground or occasion for their comparison.

All things capable of relation.

§. 7. Concerning relation in general, these things may be considered.

First, that there is no one thing, whether simple idea, substance, mode, or relation, or name of either of them, which is not capable of almost an infinite number of considerations, in reference to other things; and therefore this makes no small part of men's thoughts and words: v. g. one single man may at once be concerned in, and sustain all these following relations, and many more, viz. father, brother, son, grandfather, grandson, father-in-law, son-in-law, husband, friend, enemy, subject, general, judge, patron, client, professor, European, Englishman, islander, servant, master, possessor, captain, superior, inferior, bigger, less, older, younger, contemporary, like, unlike, &c. to an almost infinite number: he being ca-

pable of as many relations, as there can be occasions of comparing him to other things, in any manner of agreement, disagreement, or respect whatsoever. For, as I said, relation is a way of comparing or considering two things together, and giving one or both of them some appellation from that comparison; and sometimes giving even the relation itself a name.

The ideas of relations clearer often than of the subjects related.

§. 8. Secondly, this farther may be considered concerning relation, that though it be not contained in the real existence of things, but something extraneous and superinduced; yet the ideas which relative words stand for, are often clearer and more distinct, than of those substances to which they do belong. The notion we have of a father, or brother, is a great deal clearer and more distinct, than that we have of a man; or, if you will, paternity is a thing whereof it is easier to have a clear idea, than of humanity: and I can much easier conceive what a friend is, than what God. Because the knowledge of one action, or one simple idea, is oftentimes sufficient to give me the notion of a relation: but to the knowing of any substantial being, an accurate collection of sundry ideas is necessary. A man, if he compares two things together, can hardly be supposed not to know what it is, wherein he compares them: so that when he compares any things together, he cannot but have a very clear idea of that relation. The ideas then of relations are capable at least of being more perfect and distinct in our minds than those of substances. Because it is commonly hard to know all the simple ideas which are really in any substance, but for the most part easy enough to know the simple ideas that make up any relation I think on, or have a name for: v. g. comparing two men, in reference to one common parent, it is very easy to frame the ideas of brothers, without having yet the perfect idea of a man. For significant relative words, as well as others, standing only for ideas; and those being all either simple, or made up of simple ones, it suffices, for the knowing the precise idea the relative term stands for, to have a clear conception of

that which is the foundation of the relation: which may be done without having a perfect and clear idea of the thing it is attributed to. Thus having the notion, that one laid the egg out of which the other was hatched, I have a clear idea of the relation of dam and chick, between the two cassiowaries in St. James's park; though perhaps I have but a very obscure and imperfect idea of those birds themselves.

Relations all terminate in simple ideas.

§. 9. Thirdly, though there be a great number of considerations, wherein things may be compared one with another, and so a multitude of relations; yet they all terminate in, and are concerned about, those simple ideas, either of sensation or reflection: which I think to be the whole materials of all our knowledge. To clear this, I shall show it in the most considerable relations that we have any notion of, and in some that seem to be the most remote from sense or reflection; which yet will appear to have their ideas from thence, and leave it past doubt, that the notions we have of them are but certain simple ideas, and so originally derived from sense or reflection.

Terms leading the mind beyond the subject denominated, are relative.

§. 10. Fourthly, that relation being the considering of one thing with another, which is extrinsecal to it, it is evident, that all words that necessarily lead the mind to any other ideas than are supposed really to exist in that thing, to which the words are applied, are relative words: v. g. a man black, merry, thoughtful, thirsty, angry, extended; these, and the like, are all absolute, because they neither signify nor intimate any thing, but what does or is supposed really to exist in the man thus denominated: but father, brother, king, husband, blacker, merrier, &c. are words which, together with the thing they denominate, imply also something else separate and exterior to the existence of that thing.

Conclusion.

§. 11. Having laid down these premises concerning relation in general, I shall now proceed to show, in some instances, how all the ideas we have of relation are made up, as the others are, only

of simple ideas; and that they all, how refined or remote from sense soever they seem, terminate at last in simple ideas. I shall begin with the most comprehensive relation, wherein all things that do or can exist are concerned; and that is the relation of cause and effect. The idea whereof, how derived from the two fountains of all our knowledge, sensation, and reflection, I shall in the next place consider.

CHAP. XXVI.

Of Cause and Effect, and other Relations.

Whence their ideas got.

§ 1. IN the notice that our senses take of the constant vicissitude of things, we cannot but observe, that several particular, both qualities and substances, begin to exist; and that they receive this their existence from the due application and operation of some other being. From this observation we get our ideas of cause and effect. That which produces any simple or complex idea we denote by the general name cause; and that which is produced, effect. Thus finding that in that substance which we call wax fluidity, which is a simple idea that was not in it before, is constantly produced by the application of a certain degree of heat; we call the simple idea of heat, in relation to fluidity in wax, the cause of it, and fluidity the effect. So also finding that the substance of wood, which is a certain collection of simple ideas, so called, by the application of fire is turned into another substance, called ashes, i. e. another complex idea, consisting of a collection of simple ideas, quite different from that complex idea which we call wood; we consider fire, in relation to ashes, as cause, and the ashes as effect. So that whatever is considered by us to conduce or operate to the producing any particular simple idea, or collection of simple ideas, whether substance or mode, which did not before exist, hath thereby in our minds the relation of a cause, and so is denominated by us.

§. 2. Having thus, from what our senses are able to discover, in the operations of bodies on one another, got the notion of cause and effect, viz. that a cause is that which makes any other thing, either simple idea, substance or mode, begin to be: and an effect is that which had its beginning from some other thing: the mind finds no great difficulty to distinguish the several originals of things into two sorts. Creation, generation, making alteration.

First, when the thing is wholly made new, so that no part thereof did ever exist before; as when a new particle of matter doth begin to exist, in rerum natura, which had before no being, and this we call creation.

Secondly, when a thing is made up of particles, which did all of them before exist, but that very thing so constituted of pre-existing particles, which, considered all together, make up such a collection of simple ideas as had not any existence before; as this man, this egg, rose, or cherry, &c. And this, when referred to a substance, produced in the ordinary course of nature by internal principle, but set on work, and received from some external agent or cause, and working by insensible ways, which we perceive not; we call generation; when the cause is extrinsecal, and the effect produced by a sensible separation, or juxta-position of descernible parts, we call it making; and such are all artificial things. When any simple idea is produced, which was not in that subject before, we call it alteration. Thus a man is generated, a picture made, and either of them altered, when any new sensible quality or simple idea is produced in either of them, which was not there before; and the things thus made to exist, which were not there before, are effects; and those things, which operated to the existence, causes. In which, and all other causes, we may observe, that the notion of cause and effect has its rise from ideas, received by sensation, or reflection; and that this relation, how comprehensible soever, terminates at last in them. For to have the idea of cause and effect, it suffices to consider any simple idea, or substance, as beginning to exist by the operation of some other, without knowing the manner of that operation.

Relations of time.

§. 3. Time and place are also the foundations of very large relations, and all finite beings at least are concerned in them. But having already shown, in another place, how we get these ideas, it may suffice here to intimate, that most of the denominations of things, received from time, are only relations. Thus when any one says, that queen Elizabeth lived sixty-nine, and reigned forty-five years, these words import only the relation of that duration to some other, and mean no more than this, that the duration of her existence was equal to sixty-nine, and the duration of her government to forty-five annual revolutions of the sun; and so are all words, answering, how long. Again, William the Conqueror invaded England about the year 1066, which means this, that taking the duration from our Saviour's time, till now, for one entire great length of time, it shows at what distance this invasion was from the two extremes: and so do all words of time, answering to the question, when, which show only the distance of any point of time, from the period of a longer duration, from which we measure, and to which we thereby consider it as related.

§. 4. There are yet, besides those, other words of time that ordinarily are thought to stand for positive ideas, which yet will, when considered, be found to be relative, such as are young, old, &c. which include and intimate the relation any thing has to a certain length of duration, whereof we have the idea in our minds. Thus having settled in our thoughts the idea of the ordinary duration of a man to be seventy years, when we say a man is young, we mean that his age is yet but a small part of that which usually men attain to: and when we denominate him old, we mean that his duration is run out almost to the end of that which men do not usually exceed. And so it is but comparing the particular age, or duration of this or that man, to the idea of that duration which we have in our minds as ordinarily belonging to that sort of animals: which is plain, in the application of these names to other things: for a man is called young at twenty years, and very young at seven years old; but yet a

horse we call old at twenty, and a dog at seven years; because in each of these we compare their age to different ideas of duration, which are settled in our minds, as belonging to these several sorts of animals, in the ordinary course of nature. But the sun and stars, though they have out-lasted several generations of men, we call not old, because we do not know what period God hath set to that sort of beings. This term belonging properly to those things, which we can observe in the ordinary course of things, by a natural decay, to come to an end in a certain period of time; and so have in our minds, as it were, a standard to which we can compare the several parts of their duration; and, by the relation they bear thereunto, call them young or old: which we cannot therefore do to a ruby or diamond, things whose usual periods we know not.

Relations of place and extension.

§. 5. The relation also that things have to one another in their places and distances, is very obvious to observe; as above, below, a mile distant from Charing-cross, in England, and in London. But as in duration, so in extension and bulk, there are some ideas that are relative, which we signify by names that are thought positive; as great and little are truly relations. For here also having, by observation, settled in our minds the ideas of the bigness of several species of things from those we have been most accustomed to, we make them as it were the standards whereby to denominate the bulk of others. Thus we call a great apple, such a one as is bigger than the ordinary sort of those we have been used to; and a little horse, such a one as comes not up to the size of that idea, which we have in our minds, to belong ordinarily to horses: and that will be a great horse to a Welshman, which is but a little one to a Fleming; they two having, from the different breed of their countries, taken several-sized ideas to which they compare, and in relation to which they denominate their great and their little.

Absolute terms often stand for relations.

§. 6. So likewise weak and strong are but relative denominations of power, compared to some ideas we have at that time of greater or less power. Thus when we

say a weak man, we mean one that has not so much strength or power to move, as usually men have, or usually those of his size have: which is a comparing his strength to the idea we have of the usual strength of men, or men of such a size. The like, when we say the creatures are all weak things; weak, there, is but a relative term, signifying the disproportion there is in the power of God and the creatures. And so abundance of words, in ordinary speech, stand only for relations (and perhaps the greatest part) which at first sight seem to have no such signification: v. g. the ship has necessary stores. Necessary and stores are both relative words; one having a relation to the accomplishing the voyage intended, and the other to future use. All which relations, how they are confined to and terminate in ideas derived from sensation or reflection, is too obvious to need any explication.

CHAP. XXVII.

Of Identity and Diversity.

Wherein identity consists.

§. 1. ANOTHER occasion the mind often takes of comparing, is the very being of things; when considering any thing as existing at any determined time and place, we compare it with itself existing at another time, and thereon form the ideas of identity and diversity. When we see any thing to be in any place in any instant of time, we are sure (be it what it will) that it is that very thing, and not another, which at that same time exists in another place, how like and undistinguishable soever it may be in all other respects: and in this consists identity, when the ideas it is attributed to vary not at all from what they were that moment wherein we consider their former existence, and to which we compare the present. For we never finding, nor conceiving it possible, that two things of the same kind should exist in the same place at the same time, we rightly conclude, that whatever exists any where at any time, excludes all of the same kind, and is there itself alone. When therefore we demand, whether any thing

be the same or no; it refers always to something that existed such a time in such a place, which it was certain at that instant was the same with itself, and no other. From whence it follows, that one thing cannot have two beginnings of existence, nor two things one beginning; it being impossible for two things of the same kind to be or exist in the same instant, in the very same place, or one and the same thing in different places. That therefore that had one beginning, is the same thing; and that which had a different beginning in time and place from that, is not the same, but diverse. That which has made the difficulty about this relation, has been the little care and attention used in having precise notions of the things to which it is attributed.

Identity of substances.

§. 2. We have the ideas but of three sorts of substances; 1. God. 2. Finite intelligences. 3. Bodies. First, God is without beginning, eternal, unalterable, and every where; and therefore concerning his identity, there can be no doubt. Secondly, finite spirits having had each its determinate time and place of beginning to exist, the relation to that time and place will always determine to each of them its identity, as long as it exists. Thirdly, the same will hold of every particle of matter, to which no addition or subtraction of matter being made, it is the same. For though these three sorts of substances, as we term them, do not exclude one another out of the same place; yet we cannot conceive but that they must necessarily each of them exclude any of the same kind out of the same place: or else the notions and names of identity and diversity would be in vain, and there could be no such distinction of substances, or any thing else one from another. For example: could two bodies be in the same place at the same time, then those two parcels of matter must be one and the same, take them great or little: nay, all bodies must be one and the same. For by the same reason that two particles of matter may be in one place, all bodies may be in one place: which, when it can be supposed, takes away the distinction of identity and diversity of one and more, and renders it

ridiculous. But it being a contradiction, that two or more should be one, identity and diversity are relations and ways of comparing well-founded, and of use to the understanding. All other things being but modes or relations ultimately terminated in substances, the identity and diversity of each particular existence of them too will be by the same way determined: only as to things whose existence is in succession, such as are the actions of finite beings, v. g. motion and thought, both which consist in a continued train of succession: concerning their diversity, there can be no question: because each perishing the moment it begins, they cannot exist in different times, or in different places, as permanent beings can at different times exist in distant places; and therefore no motion or thought, considered as at different times, can be the same, each part thereof having a different beginning of existence.

Identity of modes.

§. 3. From what has been said, it is easy to discover what is so much inquired after, the principium individuationis; and that, it is plain, is existence itself, which determines a being of any sort to a particular time and place, incommunicable to two beings of the same kind. This, though it seems easier to conceive in simple substances or modes, yet when reflected on is not more difficult in compound ones, if care be taken to what it is applied: v. g. let us suppose an atom, i. e. a continued body under one immutable superficies, existing in a determined time and place; it is evident that, considered in any instant of its existence, it is in that instant the same with itself. For being at that instant what it is, and nothing else, it is the same, and so must continue as long as its existence is continued; for so long it will be the same, and no other. In like manner, if two or more atoms be joined together into the same mass, every one of those atoms will be the same, by the foregoing rule: and whilst they exist united together, the mass, consisting of the same atoms, must be the same mass, or the same body, let the parts be ever so differently jumbled. But if one of these atoms be

Principium individuationis.

taken away, or one new one added, it is no longer the same mass, or the same body. In the state of living creatures, their identity depends not on a mass of the same particles, but on something else. For in them the variation of great parcels of matters alters not the identity: an oak growing from a plant to a great tree, and then lopped, is still the same oak; and a colt grown up to a horse, sometimes fat, sometimes lean, is all the while the same horse: though in both these cases, there may be a manifest change of the parts; so that truly they are not either of them the same masses of matter, though they be truly one of them the same oak, and the other the same horse. The reason whereof is, that in these two cases, a mass of matter, and a living body, identity is not applied to the same thing.

Identity of vegetables.

§. 4. We must therefore consider wherein an oak differs from a mass of matter, and that seems to me to be in this, that the one is only the cohesion of particles of matter any how united, the other such a disposition of them as constitutes the parts of an oak; and such an organization of those parts as is fit to receive and distribute nourishment, so as to continue and frame the wood, bark, and leaves, &c. of an oak, in which consists the vegetable life. That being then one plant which has such an organization of parts in one coherent body partaking of one common life, it continues to be the same plant as long as it partakes of the same life, though that life be communicated to new particles of matter vitally united to the living plant, in a like continued organization conformable to that sort of plants. For this organization being at any one instant in any one collection of matter, is in that particular concrete distinguished from all other, and is that individual life which existing constantly from that moment both forwards and backwards, in the same continuity of insensibly succeeding parts united to the living body of the plant, it has that identity, which makes the same plant, and all the parts of it parts of the same plant, during all the time that they exist united in that continued orga-

nization, which is fit to convey that common life to all the parts so united.

Identity of animals.

§. 5. The case is not so much different in brutes, but that any one may hence see what makes an animal, and continues it the same. Something we have like this in machines, and may serve to illustrate it. For example, what is a watch? It is plain it is nothing but a fit organization, or construction of parts to a certain end, which when a sufficient force is added to it, it is capable to attain. If we would suppose this machine one continued body, all whose organized parts were repaired, increased, or diminished by a constant addition or separation of insensible parts, with one common life, we should have something very much like the body of an animal; with this difference, that in an animal the fitness of the organization, and the motion wherein life consists, begin together, the motion coming from within; but in machines, the force coming sensibly from without, is often away when the organ is in order, and well fitted to receive it.

Identity of man.

§. 6. This also shows wherein the identity of the same man consists: viz. in nothing but a participation of the same continued life, by constantly fleeting particles of matter, in succession vitally united to the same organized body. He that shall place the identity of man in any thing else, but like that of other animals in one fitly organized body, taken in any one instant, and from thence continued under one organization of life in several successively fleeting particles of matter united to it, will find it hard to make an embryo, one of years, mad and sober, the same man, by any supposition, that will not make it possible for Seth, Ismael, Socrates, Pilate, St. Austin, and Cæsar Borgia, to be the same man. For if the identity of soul alone makes the same man, and there be nothing in the nature of matter why the same individual spirit may not be united to different bodies, it will be possible that those men living in distant ages, and of different tempers, may have been the same man: which way of speaking must be, from a very strange

use of the word man, applied to an idea, out of which body and shape are excluded. And that way of speaking would agree yet worse with the notions of those philosophers who allow of transmigration, and are of opinion that the souls of men may, for their miscarriages, be detruded into the bodies of beasts, as fit habitations, with organs suited to the satisfaction of their brutal inclinations. But yet I think nobody, could he be sure that the soul of Heliogabalus were in one of his hogs, would yet say that hog were a man or Heliogabalus.

Identity suited to the idea.

§. 7. It is not therefore unity of substance that comprehends all sorts of identity, or will determine it in every case: but to conceive and judge of it aright, we must consider what idea the word it is applied to stands for; it being one thing to be the same substance, another the same man, and a third the same person, if person, man, and substance are three names standing for three different ideas; for such as is the idea belonging to that name, such must be the identity: which, if it had been a little more carefully attended to, would possibly have prevented a great deal of that confusion which often occurs about this matter, with no small seeming difficulties, especially concerning personal identity, which therefore we shall in the next place a little consider.

Same man.

§. 8. An animal is a living organized body; and consequently the same animal, as we have observed, is the same continued life communicated to different particles of matter, as they happen successively to be united to that organized living body. And whatever is talked of other definitions, ingenuous observation puts it past doubt, that the idea in our minds, of which the sound man in our mouths is the sign, is nothing else but of an animal of such a certain form: since I think I may be confident, that whoever should see a creature of his own shape and make, though it had no more reason all its life than a cat or a parrot, would call him still a man; or whoever should hear a cat or a parrot discourse, reason and

philosophize, would call or think it nothing but a cat or a parrot; and say, the one was a dull irrational man, and the other a very intelligent rational parrot. A relation we have in an author of great note is sufficient to countenance the supposition of a rational parrot. His words are *:

"I had a mind to know from prince Maurice's own "mouth the account of a common, but much credited "story, that I heard so often from many others, of "an old parrot he had in Brazil during his govern- "ment there, that spoke, and asked, and answered "common questions like a reasonable creature: so that "those of his train there generally concluded it to be "witchery or possession; and one of his chaplains, who "lived long afterwards in Holland, would never from "that time endure a parrot, but said, they all had a "devil in them. I had heard many particulars of this "story, and assevered by people hard to be discredited, "which made me ask prince Maurice what there was "of it. He said, with his usual plainness and dryness "in talk, there was something true, but a great deal "false of what had been reported. I desired to know "of him what there was of the first? He told me short "and coldly, that he had heard of such an old parrot "when he had been at Brazil; and though he believed "nothing of it, and it was a good way off, yet he had "so much curiosity as to send for it: that it was a very "great and a very old one, and when it came first "into the room where the prince was, with a great "many Dutchmen about him, it said presently, What "a company of white men are here! They asked it "what it thought that man was, pointing to the prince? "It answered, some general or other; when they "brought it close to him, he asked it, † D'ou venez

* Memoirs of what passed in Christendom from 1672 to 1679, p. 44.

† Whence come ye? It answered, From Marinman. The Prince, To whom do you belong? The Parrot, To a Portuguese. Prince, What do you there? Parrot, I look after the chickens. The Prince laughed and said, You look after the chickens? The parrot answered, Yes, I, and I know well enough how to do it.

" vous? It answered, De Marinnan. The prince, A " qui estes vous? The parrot, A un Portugais. Prince, " Que fais tu la? Parrot, Je garde les poulles. The " prince laughed, and said, Vous gardez les poulles? " The parrot answered, Oui, moi; et je sçai bien faire; " and made the chuck four or five times that people " use to make to chickens when they call them. I set " down the words of this worthy dialogue in French, " just as prince Maurice said them to me. I asked " him in what language the parrot spoke, and he said, " in Brasilian; I asked whether he understood Brasi- " lian; he said, no, but he had taken care to have two " interpreters by him, the one a Dutchman that spoke " Brasilian, and the other a Brasilian that spoke " Dutch; that he asked them separately and privately, " and both of them agreed in telling him just the same " thing that the parrot had said. I could not but tell " this odd story, because it is so much out of the way, " and from the first hand, and what may pass for a good " one; for I dare say this prince at least believed him- " self in all he told me, having ever passed for a very " honest and pious man. I leave it to naturalists to " reason, and to other men to believe, as they please " upon it: however, it is not, perhaps, amiss to relieve " or enliven a busy scene sometimes with such digres- " sions, whether to the purpose or no."

Same man.

I have taken care that the reader should have the story at large in the author's own words, because he seems to me not to have thought it incredible; for it cannot be imagined that so able a man as he, who had sufficiency enough to warrant all the testimonies he gives of himself, should take so much pains, in a place where it had nothing to do, to pin so close not only on a man whom he mentions as his friend, but on a prince in whom he acknowledges very great honesty and piety, a story, which if he himself thought incredible, he could not but also think ridiculous. The prince, it is plain, who vouches this story, and our author, who relates it from him, both of them call this talker a parrot: and I ask any one else, who thinks such a story fit to be told, whether if

this parrot, and all of its kind, had always talked, as we have a prince's word for it this one did, whether, I say, they would not have passed for a race of rational animals; but yet whether for all that they would have been allowed to be men, and not parrots? For I presume it is not the idea of a thinking or rational being alone that makes the idea of a man in most people's sense, but of a body, so and so shaped, joined to it: and if that be the idea of a man, the same successive body not shifted all at once, must, as well as the same immaterial spirit, go to the making of the same man.

Personal identity.

§. 9. This being premised, to find wherein personal identity consists, we must consider what person stands for; which, I think, is a thinking intelligent being, that has reason and reflection, and can consider itself as itself, the same thinking thing in different times and places; which it does only by that consciousness which is inseparable from thinking, and, as it seems to me, essential to it: it being impossible for any one to perceive, without perceiving that he does perceive. When we see, hear, smell, taste, feel, meditate, or will any thing, we know that we do so. Thus it is always as to our present sensations and perceptions: and by this every one is to himself that which he calls self; it not being considered in this case whether the same self be continued in the same or divers substances. For since consciousness always accompanies thinking, and it is that which makes every one to be what he calls self, and thereby distinguishes himself from all other thinking things; in this alone consists personal identity, i. e. the sameness of a rational being: and as far as this consciousness can be extended backwards to any past action or thought, so far reaches the identity of that person; it is the same self now it was then; and it is by the same self with this present one that now reflects on it, that that action was done.

Consciousness makes personal identity.

§. 10. But it is farther inquired, whether it be the same identical substance? This few would think they had reason to doubt of, if these perceptions, with their

consciousness, always remained present in the mind, whereby the same thinking thing would be always consciously present, and, as would be thought, evidently the same to itself. But that which seems to make the difficulty is this, that this consciousness being interrupted always by forgetfulness, there being no moment of our lives wherein we have the whole train of all our past actions before our eyes in one view, but even the best memories losing the sight of one part whilst they are viewing another; and we sometimes, and that the greatest part of our lives, not reflecting on our past selves, being intent on our present thoughts, and in sound sleep having no thoughts at all, or at least none with that consciousness which remarks our waking thoughts: I say, in all these cases, our consciousness being interrupted, and we losing the sight of our past selves, doubts are raised whether we are the same thinking thing, i. e. the same substance or no. Which however reasonable or unreasonable, concerns not personal identity at all: the question being, what makes the same person, and not whether it be the same identical substance, which always thinks in the same person; which in this case matters not at all: different substances, by the same consciousness (where they do partake in it), being united into one person, as well as different bodies by the same life are united into one animal, whose identity is preserved, in that change of substances, by the unity of one continued life. For it being the same consciousness that makes a man be himself to himself, personal identity depends on that only, whether it be annexed solely to one individual substance, or can be continued in a succession of several substances. For as far as any intelligent being can repeat the idea of any past action with the same consciousness it had of it at first, and with the same consciousness it has of any present action; so far it is the same personal self. For it is by the consciousness it has of its present thoughts and actions, that it is self to itself now, and so will be the same self, as far as the same consciousness can extend to actions past or to come; and would be by distance of time, or change of substance, no more two

persons, than a man be two men by wearing other clothes to-day than he did yesterday, with a long or a short sleep between: the same consciousness uniting those distant actions into the same person, whatever substances contributed to their production.

Personal identity in change of substances.

§. 11. That this is so, we have some kind of evidence in our very bodies, all whose particles, whilst vitally united to this same thinking conscious self, so that we feel when they are touched, and are affected by, and conscious of good or harm that happens to them, are a part of ourselves; i. e. of our thinking conscious self. Thus the limbs of his body are to every one a part of himself; he sympathizes and is concerned for them. Cut off an hand, and thereby separate it from that consciousness he had of its heat, cold, and other affections, and it is then no longer a part of that which is himself, any more than the remotest part of matter. Thus we see the substance, whereof personal self consisted at one time, may be varied at another, without the change of personal identity; there being no question about the same person, though the limbs which but now were a part of it, be cut off.

§. 12. But the question is, "whether if the same "substance which thinks, be changed, it can be the "same person; or, remaining the same, it can be dif-"ferent persons?"

Whether in the change of thinking substances.

And to this I answer, first, This can be no question at all to those who place thought in a purely material animal constitution, void of an immaterial substance. For whether their supposition be true or no, it is plain they conceive personal identity preserved in something else than identity of substance; as animal identity is preserved in identity of life, and not of substance. And therefore those who place thinking in an immaterial substance only, before they can come to deal with these men, must show why personal identity cannot be preserved in the change of immaterial substances, or variety of particular immaterial substances, as well as animal identity is preserved in the change of material

substances, or variety of particular bodies: unless they will say, it is one immaterial spirit that makes the same life in brutes, as it is one immaterial spirit that makes the same person in men; which the Cartesians at least will not admit, for fear of making brutes thinking things too.

§. 13. But next, as to the first part of the question, "whether if the same thinking substance (supposing "immaterial substances only to think) be changed, it "can be the same person?" I answer, that cannot be resolved, but by those who know what kind of substances they are that do think, and whether the consciousness of past actions can be transferred from one thinking substance to another. I grant, were the same consciousness the same individual action, it could not: but it being a present representation of a past action, why it may not be possible, that that may be represented to the mind to have been, which really never was, will remain to be shown. And therefore how far the consciousness of past actions is annexed to any individual agent, so that another cannot possibly have it, will be hard for us to determine, till we know what kind of action it is that cannot be done without a reflex act of perception accompanying it, and how performed by thinking substances, who cannot think without being conscious of it. But that which we call the same consciousness, not being the same individual act, why one intellectual substance may not have represented to it, as done by itself, what it never did, and was perhaps done by some other agent; why, I say, such a representation may not possibly be without reality of matter of fact, as well as several representations in dreams are, which yet whilst dreaming we take for true, will be difficult to conclude from the nature of things. And that it never is so, will by us, till we have clearer views of the nature of thinking substances, be best resolved into the goodness of God, who as far as the happiness or misery of any of his sensible creatures is concerned in it, will not by a fatal errour of theirs transfer from one to another that consciousness which draws reward or punishment with it. How far this may be an argument

against those who would place thinking in a system of fleeting animal spirits, I leave to be considered. But yet to return to the question before us, it must be allowed, that if the same consciousness (which, as has been shown, is quite a different thing from the same numerical figure or motion in body) can be transferred from one thinking substance to another, it will be possible that two thinking substances may make but one person. For the same consciousness being preserved, whether in the same or different substances, the personal identity is preserved.

§. 14. As to the second part of the question, "whether the same immaterial substance remaining, there "may be two distinct persons?" which question seems to me to be built on this, whether the same immaterial being, being conscious of the action of its past duration, may be wholly stripped of all the consciousness of its past existence, and lose it beyond the power of ever retrieving again; and so as it were beginning a new account from a new period, have a consciousness that cannot reach beyond this new state. All those who hold pre-existence are evidently of this mind, since they allow the soul to have no remaining consciousness of what it did in that pre-existent state, either wholly separate from body, or informing any other body; and if they should not, it is plain, experience would be against them. So that personal identity reaching no farther than consciousness reaches, a pre-existent spirit not having continued so many ages in a state of silence, must needs make different persons. Suppose a Christian, Platonist, or Pythagorean should, upon God's having ended all his works of creation the seventh day, think his soul hath existed ever since; and would imagine it has revolved in several human bodies, as I once met with one, who was persuaded his had been the soul of Socrates; (how reasonably I will not dispute; this I know, that in the post he filled, which was no inconsiderable one, he passed for a very rational man, and the press has shown that he wanted not parts or learning) would any one say, that he being not conscious of any of Socrates's actions or thoughts,

could be the same person with Socrates? Let any one reflect upon himself, and conclude that he has in himself an immaterial spirit, which is that which thinks in him, and in the constant change of his body keeps him the same; and is that which he calls himself: Let him also suppose it to be the same soul that was in Nestor or Thersites, at the siege of Troy (for souls being, as far as we know any thing of them in their nature, indifferent to any parcel of matter, the supposition has no apparent absurdity in it), which it may have been, as well as it is now the soul of any other man: but he now having no consciousness of any of the actions either of Nestor or Thersites, does or can he conceive himself the same person with either of them? can he be concerned in either of their actions? attribute them to himself, or think them his own more than the actions of any other men that ever existed? So that this consciousness not reaching to any of the actions of either of those men, he is no more one self with either of them, than if the soul or immaterial spirit that now informs him, had been created, and began to exist, when it began to inform his present body; though it were ever so true, that the same spirit that informed Nestor's or Thersites's body, were numerically the same that now informs his. For this would no more make him the same person with Nestor, than if some of the particles of matter that were once a part of Nestor, were now a part of this man; the same immaterial substance, without the same consciousness, no more making the same person by being united to any body, than the same particle of matter, without consciousness united to any body, makes the same person. But let him once find himself conscious of any of the actions of Nestor, he then finds himself the same person with Nestor.

§. 15. And thus we may be able, without any difficulty, to conceive the same person at the resurrection, though in a body not exactly in make or parts the same which he had here, the same consciousness going along with the soul that inhabits it. But yet the soul alone, in the change of bodies, would scarce to any one, but to him that makes the soul the man, be enough to

make the same man. For should the soul of a prince, carrying with it the consciousness of the prince's past life, enter and inform the body of a cobler, as soon as deserted by his own soul, every one sees he would be the same person with the prince, accountable only for the prince's actions: but who would say it was the same man? The body too goes to the making the man, and would, I guess, to every body determine the man in this case; wherein the soul, with all its princely thoughts about it, would not make another man: but he would be the same cobler to every one besides himself. I know that, in the ordinary way of speaking, the same person, and the same man, stand for one and the same thing. And indeed every one will always have a liberty to speak as he pleases, and to apply what articulate sounds to what ideas he thinks fit, and change them as often as he pleases. But yet when we will inquire what makes the same spirit, man, or person, we must fix the ideas of spirit, man, or person in our minds; and having resolved with ourselves what we mean by them, it will not be hard to determine in either of them, or the like, when it is the same, and when not.

Consciousness makes the same person.

§. 16. But though the same immaterial substance or soul does not alone, wherever it be, and in whatsoever state, make the same man; yet it is plain consciousness, as far as ever it can be extended, should it be to ages past, unites existences and actions, very remote in time, into the same person, as well as it does the existences and actions of the immediately preceding moment; so that whatever has the consciousness of present and past actions, is the same person to whom they both belong. Had I the same consciousness that I saw the ark and Noah's flood, as that I saw an overflowing of the Thames last winter, or as that I write now; I could no more doubt that I who write this now, that saw the Thames overflowed last winter, and that viewed the flood at the general deluge, was the same self, place that self in what substance you please, than that I who write this am the same myself now whilst I write (whether I consist of all the same substance, material or immaterial, or no) that I was yesterday. For as to this

point of being the same self, it matters not whether this present self be made up of the same or other substances; I being as much concerned, and as justly accountable for any action that was done a thousand years since, appropriated to me now by this self-consciousness, as I am for what I did the last moment.

Self depends on consciousness.

§. 17. Self is that conscious thinking thing, whatever substance made up of (whether spiritual or material, simple or compounded, it matters not), which is sensible, or conscious of pleasure and pain, capable of happiness or misery, and so is concerned for itself, as far as that consciousness extends. Thus every one finds, that whilst comprehended under that consciousness, the little finger is as much a part of himself as what is most so. Upon separation of this little finger, should this consciousness go along with the little finger, and leave the rest of the body, it is evident the little finger would be the person, the same person; and self then would have nothing to do with the rest of the body. As in this case it is the consciousness that goes along with the substance, when one part is separate from another, which makes the same person, and constitutes this inseparable self; so it is in reference to substances remote in time. That with which the consciousness of this present thinking thing can join itself, makes the same person, and is one self with it, and with nothing else; and so attributes to itself, and owns all the actions of that thing as its own, as far as that consciousness reaches, and no farther; as every one who reflects will perceive.

Objects of reward and punishment.

§. 18. In this personal identity, is founded all the right and justice of reward and punishment; happiness and misery being that for which every one is concerned for himself, and not mattering what becomes of any substance not joined to, or affected with that consciousness. For as it is evident in the instance I gave but now, if the consciousness went along with the little finger when it was cut off, that would be the same self which was concerned for the whole body yesterday, as making part of itself, whose actions then it cannot but admit as its own now. Though if the same body should still live, and

immediately, from the separation of the little finger, have its own peculiar consciousness, whereof the little finger knew nothing; it would not at all be concerned for it, as a part of itself, or could own any of its actions, or have any of them imputed to him.

§. 19. This may show us wherein personal identity consists; not in the identity of substance, but, as I have said, in the identity of consciousness; wherein, if Socrates and the present mayor of Queenborough agree, they are the same person: if the same Socrates waking and sleeping do not partake of the same consciousness, Socrates waking and sleeping is not the same person. And to punish Socrates waking for what sleeping Socrates thought, and waking Socrates was never conscious of; would be no more of right, than to punish one twin for what his brother-twin did, whereof he knew nothing, because their outsides were so like, that they could not be distinguished; for such twins have been seen.

§. 20. But yet possibly it will still be objected, suppose I wholly lose the memory of some parts of my life beyond a possibility of retrieving them, so that perhaps I shall never be conscious of them again; yet am I not the same person that did those actions, had those thoughts that I once was conscious of, though I have now forgot them? To which I answer, that we must here take notice what the word I is applied to; which, in this case, is the man only. And the same man being presumed to be the same person, I is easily here supposed to stand also for the same person. But if it be possible for the same man to have distinct incommunicable consciousness at different times, it is past doubt the same man would at different times make different persons; which, we see, is the sense of mankind in the solemnest declaration of their opinions; human laws not punishing the mad man for the sober man's actions, nor the sober man for what the mad man did, thereby making them two persons: which is somewhat explained by our way of speaking in English, when we say such an one is not himself, or is beside himself; in which phrases it is insinuated, as if those who now, or at least first used them, thought that self was changed, the self-same person was no longer in that man.

§. 21. But yet it is hard to conceive that Socrates, the same individual man, should be two persons. To help us a little in this, we must consider what is meant by Socrates, or the same individual man. Difference between identity of man and person.

First, it must be either the same individual, immaterial, thinking substance; in short, the same numerical soul, and nothing else.

Secondly, or the same animal, without any regard to an immaterial soul.

Thirdly, or the same immaterial spirit united to the same animal.

Now take which of these suppositions you please, it is impossible to make personal identity to consist in any thing but consciousness, or reach any farther than that does.

For by the first of them, it must be allowed possible that a man born of different women, and in distant times, may be the same man. A way of speaking, which whoever admits, must allow it possible for the same man to be two distinct persons, as any two that have lived in different ages, without the knowledge of one another's thoughts.

By the second and third, Socrates in this life, and after it, cannot be the same man any way, but by the same consciousness; and so making human identity to consist in the same thing wherein we place personal identity, there will be no difficulty to allow the same man to be the same person. But then they who place human identity in consciousness only, and not in something else, must consider how they will make the infant Socrates the same man with Socrates after the resurrection. But whatsoever to some men makes a man, and consequently the same individual man, wherein perhaps few are agreed, personal identity can by us be placed in nothing but consciousness (which is that alone which makes what we call self) without involving us in great absurdities.

§. 22. But is not a man drunk and sober the same person? Why else is he punished for the fact he commits when drunk, though he be never afterwards conscious

of it? Just as much the same person as a man, that walks, and does other things in his sleep, is the same person, and is answerable for any mischief he shall do in it. Human laws punish both, with a justice suitable to their way of knowledge; because in these cases, they cannot distinguish certainly what is real, what counterfeit: and so the ignorance in drunkenness or sleep is not admitted as a plea. For though punishment be annexed to personality, and personality to consciousness, and the drunkard perhaps be not conscious of what he did; yet human judicatures justly punish him, because the fact is proved against him, but want of consciousness cannot be proved for him. But in the great day, wherein the secrets of all hearts shall be laid open, it may be reasonable to think, no one shall be made to answer for what he knows nothing of; but shall receive his doom, his conscience accusing or excusing him.

Consciousness alone makes self.

§. 23. Nothing but consciousness can unite remote existences into the same person, the identity of substance will not do it. For whatever substance there is, however framed, without consciousness there is no person: and a carcase may be a person, as well as any sort of substance be so without consciousness.

Could we suppose two distinct incommunicable consciousnesses acting the same body, the one constantly by day, the other by night; and, on the other side, the same consciousness acting by intervals two distinct bodies: I ask in the first case, whether the day and the night man would not be two as distinct persons, as Socrates and Plato? And whether, in the second case, there would not be one person in two distinct bodies, as much as one man is the same in two distinct cloathings? Nor is it at all material to say, that this same, and this distinct consciousness, in the cases above mentioned, is owing to the same and distinct immaterial substances, bringing it with them to those bodies; which, whether true or no, alters not the case: since it is evident the personal identity would equally be determined by the consciousness, whether that consciousness

were annexed to some individual immaterial substance or no. For granting, that the thinking substance in man must be necessarily supposed immaterial, it is evident that immaterial thinking thing may sometimes part with its past consciousness, and be restored to it again, as appears in the forgetfulness men often have of their past actions; and the mind many times recovers the memory of a past consciousness, which it had lost for twenty years together. Make these intervals of memory and forgetfulness, to take their turns regularly by day and night, and you have two persons with the same immaterial spirit, as much as in the former instance two persons with the same body. So that self is not determined by identity or diversity of substance, which it cannot be sure of but only by identity of consciousness.

§. 24. Indeed it may conceive the substance, whereof it is now made up, to have existed formerly, united in the same conscious being: but consciousness removed, that substance is no more itself, or makes no more a part of it than any other substance; as is evident in the instance we have already given of a limb cut off, of whose heat, or cold, or other affections, having no longer any consciousness, it is no more of a man's self, than any other matter of the universe. In like manner it will be in reference to any immaterial substance, which is void of that consciousness whereby I am myself to myself: if there be any part of its existence, which I cannot upon recollection join with that present consciousness whereby I am now myself, it is in that part of its existence no more myself, than any other immaterial being. For whatsoever any substance has thought or done, which I cannot recollect, and by my consciousness make my own thought and action, it will no more belong to me, whether a part of me thought or did it, than if it had been thought or done by any other immaterial being any where existing.

§. 25. I agree, the more probable opinion is, that this consciousness is annexed to, and the affection of one individual immaterial substance.

But let men, according to their diverse hypotheses, resolve of that as they please, this every intelligent being, sensible of happiness or misery, must grant, that there is something that is himself that he is concerned for, and would have happy: that this self has existed in a continued duration more than one instant, and therefore it is possible may exist, as it has done, months and years to come, without any certain bounds to be set to its duration, and may be the same self, by the same consciousness continued on for the future. And thus, by this consciousness, he finds himself to be the same self which did such or such an action some years since, by which he comes to be happy or miserable now. In all which account of self, the same numerical substance is not considered as making the same self; but the same continued consciousness, in which several substances may have been united, and again separated from it; which, whilst they continued in a vital union with that, wherein this consciousness then resided, made a part of that same self. Thus any part of our bodies vitally united to that which is conscious in us, makes a part of ourselves: but upon separation from the vital union, by which that consciousness is communicated, that which a moment since was part of ourselves, is now no more so, than a part of another man's self is a part of me: and it is not impossible, but in a little time may become a real part of another person. And so we have the same numerical substance become a part of two different persons; and the same person preserved under the change of various substances. Could we suppose any spirit wholly stripped of all its memory or consciousness of past actions, as we find our minds always are of a great part of ours, and sometimes of them all; the union or separation of such a spiritual substance would make no variation of personal identity, any more than that of any particle of matter does. Any substance vitally united to the present thinking being, is a part of that very same self which now is: any thing united to it by a consciouness of former actions, makes also a part of the same self, which is the same both then and now.

§. 26. Person, as I take it, is the name for this *self*. Wherever a man finds what he calls himself, there I think another may say is the same person. It is a forensick term appropriating actions and their merit; and so belongs only to intelligent agents capable of a law, and happiness and misery. This personality extends itself beyond present existence to what is past, only by consciousness, whereby it becomes concerned and accountable, owns and imputes to itself past actions, just upon the same ground, and for the same reason that it does the present. All which is founded in a concern for happiness, the unavoidable concomitant of consciousness; that which is conscious of pleasure and pain, desiring that that self that is conscious should be happy. And therefore whatever past actions it cannot reconcile or appropriate to that present self by consciousness, it can be no more concerned in, than if they had never been done: and to receive pleasure or pain, i. e. reward or punishment, on the account of any such action, is all one as to be made happy or miserable in its first being, without any demerit at all. For supposing a man punished now for what he had done in another life, whereof he could be made to have no consciousness at all, what difference is there between that punishment, and being created miserable? And therefore conformable to this the apostle tells us, that at the great day, when every one shall "receive according to his "doings, the secrets of all hearts shall be laid open." The sentence shall be justified by the consciousness all persons shall have, that they themselves, in what bodies soever they appear, or what substances soever that consciousness adheres to, are the same that committed those actions, and deserve that punishment for them. Person a forensick term.

§. 27. I am apt enough to think I have, in treating of this subject, made some suppositions that will look strange to some readers, and possibly they are so in themselves. But yet, I think, they are such as are pardonable in this ignorance we are in of the nature of that thinking thing that is in us, and which we look on as ourselves. Did we know what it was, or

how it was tied to a certain system of fleeting animal spirits; or whether it could or could not perform its operations of thinking and memory out of a body organized as ours is: and whether it has pleased God, that no one such spirit shall ever be united to any one but such body, upon the right constitution of whose organs its memory should depend: we might see the absurdity of some of those suppositions I have made. But taking, as we ordinarily now do, (in the dark concerning these matters) the soul of a man, for an immaterial substance, independent from matter, and indifferent alike to it all, there can from the nature of things be no absurdity at all to suppose, that the same soul may, at different times, be united to different bodies, and with them make up, for that time, one man: as well as we suppose a part of a sheep's body yesterday should be a part of a man's body to-morrow, and in that union make a vital part of Meliboeus himself, as well as it did of his ram.

The difficulty from ill use of names.

§. 28. To conclude: Whatever substance begins to exist, it must, during its existence, necessarily be the same: whatever compositions of substances begin to exist, during the union of those substances the concrete must be the same: whatsoever mode begins to exist, during its existence it is the same: and so if the composition be of distinct substances and different modes, the same rule holds. Whereby it will appear, that the difficulty or obscurity that has been about this matter, rather rises from the names ill used, than from any obscurity in things themselves. For whatever makes the specifick idea to which the name is applied, if that idea be steadily kept to, the distinction of any thing into the same and divers will easily be conceived, and there can arise no doubt about it.

Continued existence makes identity.

§. 29. For supposing a rational spirit be the idea of a man, it is easy to know what is the same man; viz. the same spirit, whether separate or in a body, will be the same man. Supposing a rational spirit vitally united to a body of a certain conformation of parts to make a man, whilst

that rational spirit, with that vital conformation of parts, though continued in a fleeting successive body, remains, it will be the same. But if to any one the idea of a man be but the vital union of parts in a certain shape; as long as that vital union and shape remain, in a concrete no otherwise the same, but by a continued succession of fleeting particles, it will be the same. For whatever be the composition, whereof the complex idea is made, whenever existence makes it one particular thing under any denomination, the same existence, continued, preserves it the same individual under the same denomination. (1)

(1) The doctrine of identity and diversity contained in this chapter, the bishop of Worcester pretends to be inconsistent with the doctrines of the Christian faith, concerning the resurrection of the dead. His way of arguing from it, is this; He says, The reason of believing the resurrection of the same body, upon Mr. Locke's grounds, is from the idea of identity. To which our author * answers: Give me leave, my lord, to say, that the reason of believing any article of the Christian faith (such as your lordship is here speaking of) to me, and upon my grounds, is its being a part of divine revelation: upon this ground I believed it, before I either writ that chapter of identity and diversity, and before I ever thought of those propositions which your lordship quotes out of that chapter; and upon the same ground I believe it still; and not from my idea of identity. This saying of your lordship's, therefore, being a proposition neither self-evident, nor allowed by me to be true, remains to be proved. So that your foundation failing, all your large superstructure built thereon, comes to nothing.

But, my lord, before we go any farther, I crave leave humbly to represent to your lordship, that I thought you undertook to make out that my notion of ideas was inconsistent with the articles of the Christian faith. But that which your lordship instances in here, is not, that I yet know, an article of the Christian faith. The resurrection of the dead I acknowledge to be an article of the Christian faith: but that the resurrection of the same body, in your lordship's sense of the same body, is an article of the Christian faith, is what, I confess, I do not yet know.

In the New Testament (wherein, I think, are contained all the articles of the Christian faith) I find our Saviour and the apostles to preach the resurrection of the dead, and the resurrection from the dead, in many places: but I do not remember any place where the resurrection of the same body is so much as mentioned. Nay, which is very remarkable in the case, I do not remember in any place of the New Testament (where

* In his 3d letter to the bishop of Worcester.

the general resurrection at the last day is spoken of) any such expression as the resurrection of the body, much less of the same body.

I say the general resurrection at the last day: because, where the resurrection of some particular persons, presently upon our Saviour's resurrection, is mentioned, the words are *, The graves were opened, and many bodies of saints, which slept, arose, and came out of the graves after his resurrection, and went into the Holy City, and appeared to many: of which peculiar way of speaking of this resurrection, the passage itself gives a reason in these words, appeared to many, i. e. those who slept appeared, so as to be known to be risen. But this could not be known, unless they brought with them the evidence, that they were those who had been dead; whereof there were these two proofs, their graves were opened, and their bodies not only gone out of them, but appeared to be the same to those who had known them formerly alive, and knew them to be dead and buried. For if they had been those who had been dead so long, that all who knew them once alive were now gone, those to whom they appeared might have known them to be men; but could not have known they were risen from the dead, because they never knew they had been dead. All that by their appearing they could have known, was, that they were so many living strangers, of whose resurrection they knew nothing. It was necessary therefore, that they should come in such bodies, as might in make and size, &c. appear to be the same they had before, that they might be known to those of their acquaintance, whom they appeared to. And it is probable they were such as were newly dead, whose bodies were not yet dissolved and dissipated; and therefore, it is particularly said here (differently from what is said of the general resurrection) that their bodies arose; because they were the same that were then lying in their graves, the moment before they rose.

But your lordship endeavours to prove it must be the same body: and let us grant that your lordship, nay, and others too, think you have proved it must be the same body; Will you therefore say, that he holds what is inconsistent with an article of faith, who having never seen this your lordship's interpretation of the scripture, nor your reasons for the same body, in your sense of same body; or, if he has seen them, yet not understanding them, or not perceiving the force of them, believes what the scripture proposes to him, viz. That at the last day the dead shall be raised, without determining whether it shall be with the very same bodies or no?

I know your lordship pretends not to erect your particular interpretations of scripture into articles of faith. And if you do not, he that believes the dead shall be raised, believes that article of faith which the scripture proposes; and cannot be accused of holding any thing inconsistent with it, if it should happen, that what he holds is inconsistent with another proposition, viz. That the dead shall be raised with the same bodies, in your lordship's sense, which I do not find proposed in Holy Writ as an article of faith.

But your lordship argues, It must be the same body; which, as you explain same body †, is not the same individual particles of matter, which were united at the point of death; nor the same particles of matter, that the sinner had at the time of the commission of his sins:

* Mat. xxvii. 52, 53. † 2d Ans.

but that it must be the same material substance which was vitally united to the soul here, i. e. as I understand it, the same individual particles of matter, which were some time or other during his life here vitally united to his soul.

Your first argument to prove, that it must be the same body in this sense of the same body, is taken from these words of our Saviour, * All that are in the graves shall hear his voice, and shall come forth. † From whence your lordship argues, That these words, all that are in their graves, relate to no other substance than what was united to the soul in life; because a different substance cannot be said to be in the graves, and to come out of them. Which words of your lordship's, if they prove any thing, prove that the soul too is lodged in the grave, and raised out of it at the last day. For your lordship says, Can a different substance be said to be in the graves, and come out of them? So that, according to this interpretation of these words of our Saviour, No other substance being raised, but what hears his voice; and no other substance hearing his voice, but what being called, comes out of the grave; and no other substance coming out of the grave, but what was in the grave; any one must conclude, that the soul, unless it be in the grave, will make no part of the person that is raised; unless, as your lordship argues against me ‡, You can make it out, that a substance which never was in the grave may come out of it, or that the soul is no substance.

But setting aside the substance of the soul, another thing that will make any one doubt, whether this your interpretation of our Saviour's words be necessarily to be received as their true sense, is, That it will not be very easily reconciled to your saying ||, you do not mean by the same body, The same individual particles which were united at the point of death. And yet, by this interpretation of our Saviour's words, you can mean no other particles but such as were united at the point of death; because you mean no other substance but what comes out of the grave; and no substance, no particles come out, you say, but what were in the grave; and I think, your lordship will not say, that the particles that were separate from the body by perspiration before the point of death, were laid up in the grave.

But your lordship, I find, has an answer to this, viz. § That by comparing this with other places, you find that the words [of our Saviour above quoted] are to be understood of the substance of the body, to which the soul was united, and not to (I suppose your lordship writ, of) these individual particles, i. e. those individual particles that are in the grave at the resurrection. For so they must be read, to make your lordship's sense entire, and to the purpose of your answer here: and then, methinks, this last sense of our Saviour's words given by your lordship, wholly overturns the sense which we have given of them above, where from those words you press the belief of the resurrection of the same body, by this strong argument, that a substance could not, upon hearing the voice of Christ, come out of the grave, which was never in the grave. There (as far as I can understand your words) your lordship argues, that our Saviour's words are to be understood of the particles in the grave, unless, as your lordship says, one can make it out, that a substance which never was in the grave, may come out of it. And here your

* John v. 28, 29. † 2d Ans. ‡ Ib. || Ib. § Ib.

lordship expressly says, That our Saviour's words are to be understood of the substance of that body, to which the soul was (at any time) united, and not to those individual particles that are in the grave. Which put together, seems to me to say, That our Saviour's words are to be understood of those particles only that are in the grave, and not of those particles only which are in the grave, but of others also, which have at any time been vitally united to the soul, but never were in the grave.

The next text your lordship brings to make the resurrection of the same body, in your sense, an article of faith, are these words of St. Paul; * For we must all appear before the judgment-seat of Christ, that every one may receive the things done in his body, according to that he hath done, whether it be good or bad. To which your lordship subjoins † this question: Can these words be understood of any other material substance, but that body in which these things were done? Answer. A man may suspend his determining the meaning of the apostle to be, that a sinner shall suffer for his sins in the very same body wherein he committed them; because St. Paul does not say he shall have the very same body when he suffers, that he had when he sinned. The apostle says indeed, done in his body. The body he had, and did things in, at five or fifteen, was, no doubt, his body, as much as that, which he did things in at fifty, was his body, though his body were not the very same body at those different ages: and so will the body, which he shall have after the resurrection, be his body, though it be not the very same with that, which he had at five, or fifteen, or fifty. He that at threescore is broke on the wheel for a murder he committed at twenty, is punished for what he did in his body, though the body he has, i. e. his body at threescore, be not the same, i. e. made up of the same individual particles of matter, that that body was, which he had forty years before. When your lordship has resolved with yourself, what that same immutable he is, which at the last judgment shall receive the things done in his body, your lordship will easily see, that the body he had when an embryo in the womb, when a child playing in coats, when a man marrying a wife, and when bed-rid dying of a consumption, and at last, which he shall have after his resurrection, are each of them his body, though neither of them be the same body, the one with the other.

But farther, to your lordship's question, Can these words be understood of any other material substance, but that body in which these things were done? I answer. These words of St. Paul may be understood of another material substance, than that body in which these things were done, because your lordship teaches me, and gives me a strong reason so to understand them. Your lordship says, ‡ That you do not say the same particles of matter, which the sinner had at the very time of the commission of his sins, shall be raised at the last day. And your lordship gives this reason for it; ‖ For then a long sinner must have a vast body, considering the continued spending of particles by perspiration. Now, my lord, if the apostle's words, as your lordship would argue, cannot be understood of any other material substance, but that body in which these things were done; and no body, upon the removal or change of some of the particles that at any time make it up, is the same material sub-

* 2 Cor. v. 10. † 2d Ans. ‡ Ib. ‖ Ib.

stance, or the same body; it will, I think, thence follow, that either the sinner must have all the same individual particles vitally united to his soul when he is raised, that he had vitally united to his soul when he sinned; or else St. Paul's words here cannot be understood to mean the same body in which the things were done'. For if there were other particles of matter in the body, wherein the things were done, than in that which is raised, that which is raised cannot be the same body in which they were done: unless that alone, which has just all the same individual particles when any action is done, being the same body wherein it was done, that also, which has not the same individual particles wherein that action was done, can be the same body wherein it was done; which is in effect to make the same body sometimes to be the same, and sometimes not the same.

Your lordship thinks it suffices to make the same body, to have not all, but no other particles of matter, but such as were some time or other vitally united to the soul before: but such a body, made up of part of the particles some time or other vitally united to the soul, is no more the same body wherein the actions were done in the distant parts of the long sinner's life, than that is the same body in which a quarter, or half, or three quarters of the same particles, that made it up, are wanting. For example, A sinner has acted here in his body an hundred years; he is raised at the last day, but with what body? The same, says your lordship, that he acted in; because St. Paul says, he must receive the things done in his body. What therefore must his body at the resurrection consist of? Must it consist of all the particles of matter that have ever been vitally united to his soul? For they, in succession, have all of them made up his body wherein he did these things: No, says your lordship, *that would make his body too vast; it suffices to make the same body in which the things were done, that it consists of some of the particles, and no other, but such as were, some time during his life, vitally united to his soul. But according to this account, his body at the resurrection being, as your lordship seems to limit it, near the same size it was in some part of his life, it will be no more the same body in which the things were done in the distant parts of his life, than that is the same body, in which half, or three quarters, or more of the individual matter that then made it up, is now wanting. For example, Let his body at fifty years old consist of a million of parts: five hundred thousand at least of those parts will be different from those which made up his body at ten years, and at an hundred. So that to take the numerical particles, that made up his body at fifty, or any other season of his life, or to gather them promiscuously out of those which at different times have successively been vitally united to his soul, they will no more make the same body, which was his, wherein some of his actions were done, than that is the same body, which has but half the same particles: and yet all your lordship's argument here for the same body, is, because St. Paul says it must be his body, in which these things were done; which it could not be, if any other substance were joined to it, i. e. if any other particles of matter made up the body, which were not vitally united to the soul when the action was done.

Again, your lordship says, * 'That you do not say the same individual particles [shall make up the body at the resurrection] which were united at the point of death, for there must be a great alteration in them in a lingering disease, as if a fat man falls into a consumption.' Because, it is likely, your lordship thinks these particles of a decrepit, wasted, withered body, would be too few, or unfit to make such a plump, strong, vigorous, well sized body, as it has pleased your lordship to proportion out in your thoughts to men at the resurrection; and therefore some small portion of the particles formerly united vitally to that man's soul, shall be reassumed to make up his body to the bulk your lordship judges convenient; but the greatest part of them shall be left out, to avoid the making his body more vast than your lordship thinks will be fit, as appears by these your lordship's words immediately following, viz.† 'That you do not say the same particles the sinner had at the very time of commission of his sins; for then a long sinner must have a vast body.'

But then, pray, my lord, what must an embryo do, who dying within a few hours after his body was vitally united to his soul, has no particles of matter, which were formerly vitally united to it, to make up his body of that size and proportion which your lordship seems to require in bodies at the resurrection? Or must we believe he shall remain content with that small pittance of matter, and that yet imperfect body to eternity, because it is an article of faith to believe the resurrection of the very same body, i. e. made up of only such particles as have been vitally united to the soul? For if it be so, as your lordship says, ‡ 'That life is the result of the union of soul and body,' it will follow, that the body of an embryo dying in the womb may be very little, not the thousandth part of any ordinary man. For since from the first conception and beginning of formation it has life, and 'life is the result of the union of the soul with the body;' an embryo, that shall die either by the untimely death of the mother, or by any other accident, presently after it has life, must, according to your lordship's doctrine, remain a man not an inch long to eternity; because there are not particles of matter, formerly united to his soul, to make him bigger, and no other can be made use of to that purpose: though what greater congruity the soul hath with any particles of matter which were once vitally united to it, but are now so no longer, than it hath with particles of matter which it was never united to, would be hard to determine, if that should be demanded.

By these, and not a few other the like consequences, one may see what service they do to religion, and the christian doctrine, who raise questions, and make articles of faith about the resurrection of the same body, where the scripture says nothing of the same body; or if it does, it is with no small reprimand ‖ to those who make such an enquiry. 'But some men will say, How are the dead raised up? and with what body do they come? Thou fool, that which thou sowest, is not quickened except it die. And that which thou sowest, thou sowest not that body that shall be, but bare grain, it may chance of wheat, or of some other grain. But God giveth it a body, as it hath pleased him.' Words, I should think, sufficient to deter us from determining any thing for or against the same body's being raised at the last day. It suffices, that all

* 2d Answ. † Ibid. ‡ Ibid. ‖ 1 Cor. xv. 35, &c.

the dead shall be raised, and every one appear and answer for the things done in his life, and receive according to the things he has done in his body, whether good or bad. He that believes this, and has said nothing inconsistent herewith, I presume may and must be acquitted from being guilty of any thing inconsistent with the article of the resurrection of the dead.

But your lordship, to prove the resurrection of the same body to be an article of faith, farther asks, * 'How could it be said, if any other substance be joined to the soul at the resurrection, as its body, that they were the things done in or by the body?' Answ. Just as it may be said of a man at an hundred years old, that hath then another substance joined to his soul, than he had at twenty; that the murder or drunkenness he was guilty of at twenty, were things done in the body: how 'by the body' comes in here, I do not see.

Your lordship adds, 'and St. Paul's dispute about the manner of raising the body, might soon have ended, if there were no necessity of the same body.' Answ. When I understand what argument there is in these words to prove the resurrection of the same body, without the mixture of on new atom of matter, I shall know what to say to it. In the mean time this I understand, that St. Paul would have put as short an end to all disputes about this matter, if he had said, that there was a necessity of the same body, or that it should be the same body.

The next text of scripture you bring for the same body is, † 'If there be no resurrection of the dead, then is not Christ raised.' From which your lordship argues, ‡ 'It seems then other bodies are to be raised as his was.' I grant other dead, as certainly raised as Christ was; for else his resurrection would be of no use to mankind. But I do not see how it follows, that they shall be raised with the same body, as Christ was raised with the same body, as your lordship infers in these words annexed; 'And can there be any doubt, whether his body was the same material substance which was united to his soul before?' I answer, None at all; nor that it had just the same distinguishing lineaments and marks, yea, and the same wounds that it had at the time of his death. If therefore your lordship will argue from other bodies being raised as his was, That they must keep proportion with his in sameness; then we must believe, that every man shall be raised with the same lineaments and other notes of distinction he had at the time of his death, even with his wounds yet open, if he had any, because our Saviour was so raised: which seems to me scarce reconcileable with what your lordship says, ‖ of a fat man falling into a consumption, and dying.

But whether it will consist or no with your lordship's meaning in that place, this to me seems a consequence that will need to be better proved, viz. That our bodies must be raised the same, just as our Saviour's was: because St. Paul says, 'if there be no resurrection of the dead, then is not Christ risen.' For it may be a good consequence, Christ is risen, and therefore there shall be a resurrection of the dead; and yet this may not be a good consequence, Christ was raised with the same body he had at his death, therefore all men shall be raised with the same body they had at their death, contrary to what your lordship says concerning a fat man

* 2d Answ. † 2 Cor. xv, 16. ‡ 2d Answ. ‖ Ibid.

dying of a consumption. But the case I think far different betwixt our Saviour, and those to be raised at the last day.

1. His body saw not corruption, and therefore to give him another body new moulded, mixed with other particles, which were not contained in it as it lay in the grave, whole and intire as it was laid there, had been to destroy his body to frame him a new one without any need. But why with the remaining particles of a man's body long since dissolved and mouldered into dust and atoms (whereof possibly a great part may have undergone variety of changes, and entered into other concretions; even in the bodies of other men) other new particles of matter mixed with them, may not serve to make his body again, as well as the mixture of new and different particles of matter with the old, did in the compass of his life make his body, I think no reason can be given.

This may serve to show, why, though the materials of our Saviour's body were not changed at his resurrection; yet it does not follow, but that the body of a man dead and rotten in his grave, or burnt, may at the last day have several new particles in it, and that without any inconvenience: since whatever matter is vitally united to his soul is his body, as much as is that which was united to it when he was born, or in any other part of his life.

2. In the next place, the size, shape, figure, and lineaments of our Saviour's body, even to his wounds, into which doubting Thomas put his fingers and his hand, were to be kept in the raised body of our Saviour, the same they were at his death, to be a conviction to his disciples, to whom he shewed himself, and who were to be witnesses of his resurrection, that their master, the very same man, was crucified, dead, and buried, and raised again; and therefore he was handled by them, and eat before them after he was risen, to give them in all points full satisfaction that it was really he, the same, and not another, nor a spectre or apparition of him; though I do not think your lordship will thence argue, that because others are to be raised as he was, therefore it is necessary to believe, that because he eat after his resurrection, others at the last day shall eat and drink after they are raised from the dead; which seems to me as good an argument, as because his undissolved body was raised out of the grave, just as it there lay intire, without the mixture of any new particles: therefore the corrupted and consumed bodies of the dead, at the resurrection, shall be new framed only out of those scattered particles which were once vitally united to their souls, without the least mixture of any one single atom of new matter. But at the last day, when all men are raised, there will be no need to be assured of any one particular man's resurrection. It is enough that every one shall appear before the judgment-seat of Christ, to receive according to what he had done in his former life; but in what sort of body he shall appear, or of what particles made up, the scripture having said nothing, but that it shall be a spiritual body raised in incorruption, it is not for me to determine.

Your lordship asks, * 'Were they [who saw our Saviour after his resurrection] witnesses only of some material substance then united to his soul?' In answer, I beg your lordship to consider, whether you suppose our Saviour was to be known to be the same man (to the witnesses that

* 2d Answ.

were to see him, and testify his resurrection) by his soul, that could neither be seen or known to be the same: or by his body, that could be seen, and by the discernible structure and marks of it, be known to be the same? When your lordship has resolved that, all that you say in that page will answer itself. But because one man cannot know another to be the same, but by the outward visible lineaments, and sensible marks he has been wont to be known and distinguished by, will your lordship therefore argue, That the Great Judge, at the last day, who gives to each man, whom he raises, his new body, shall not be able to know who is who, unless he give to every one of them a body, just of the same figure, size, and features, and made up of the very same individual particles he had in his former life? Whether such a way of arguing for the resurrection of the same body, to be an article of faith, contributes much to the strengthening of the credibility of the article of the resurrection of the dead, I shall leave to the judgment of others.

Farther, for the proving the resurrection of the same body, to be an article of faith, your lordship says, * 'But the apostle insists upon the resurrection of Christ, not merely as an argument of the possibility of ours, but of the certainty of it; † because he rose, as the first-fruits; Christ the first-fruits, afterwards they that are Christ's at his coming.' Answ. No doubt, the resurrection of Christ is a proof of the certainty of our resurrection. But is it therefore a proof of the resurrection of the same body, consisting of the same individual particles which concurred to the making up of our body here, without the mixture of any one other particle of matter? I confess I see no such consequence.

But your lordship goes on: ‡ 'St. Paul was aware of the objections in men's minds about the resurrection of the same body; and it is of great consequence as to this article, to show upon what grounds he proceeds. "But some men will say, how are the dead raised up, and with what body do they come?" First, he shows, that the seminal parts of plants are wonderfully improved by the ordinary Providence of God, in the manner of their vegetation.' Answer. I do not perfectly understand, what it is 'for the seminal parts of plants to be wonderfully improved by the ordinary Providence of God, in the manner of their vegetation;' or else, perhaps, I should better see how this here tends to the proof of the resurrection of the same body, in your lordship's sense.

It continues, ‖ 'They sow bare grain of wheat, or of some other grain, but God giveth it a body, as it hath pleased him, and to every seed his own body. Here, says your lordship, is an identity of the material substance supposed.' It may be so. But to me a diversity of the material substance, i. e. of the component particles, is here supposed, or in direct words said. For the words of St. Paul taken altogether, run thus, § 'That which thou sowest, thou sowest not that body which shall be, but bare grain;' and so on, as your lordship has set down in the remainder of them. From which words of St. Paul, the natural argument seems to me to stand thus: If the body that is put in the earth in sowing, is not that body which shall be, then the body that is put in the grave, is not that, i. e. the same body that shall be.

* 2d Answ. † 1 Cor. xv. 20, 23. ‡ 2d Answ. ‖ Ibid. § V. 37.

But your lordship proves it to be the same body by these three Greek words of the text, τὸ ἴδιον σῶμα, which your lordship interprets thus, * 'That proper body which belongs to it.' Answer. Indeed by those Greek words τὸ ἴδιον σῶμα, whether our translators have rightly rendered them 'his own body,' or your lordship more rightly 'that proper body which belongs to it,' I formerly understood no more but this, that in the production of wheat, and other grain from seed, God continued every species distinct; so that from grains of wheat sown, root, stalk, blade, ear, grains of wheat were produced, and not those of barley; and so of the rest, which I took to be the meaning of 'to every seed his own body.' No, says your lordship, these words prove, That to every plant of wheat, and to every grain of wheat produced in it, is given the proper body that belongs to it, which is the same body with the grain that was sown. Answer. This, I confess, I do not understand; because I do not understand how one individual grain can be the same with twenty, fifty, or an hundred individual grains; for such sometimes is the increase.

But your lordship proves it. For, says your lordship, † 'Every seed having that body in little, which is afterwards so much enlarged; and in grain the seed is corrupted before its germination; but it hath its proper organical parts, which make it the same body with that which it grows up to. For although grain be not divided into lobes, as other seeds are, yet it hath been found, by the most accurate observations, that upon separating the membranes, these seminal parts are discerned in them; which afterwards grow up to that body which we call corn.' In which words I crave leave to observe, that your lordship supposes that a body may be enlarged by the addition of an hundred or a thousand times as much in bulk as its own matter, and yet continue the same body; which, I confess, I cannot understand.

But in the next place, if that could be so; and that the plant, in its full growth at harvest, increased by a thousand or a million of times as much new matter added to it, as it had when it lay in little concealed in the grain that was sown, was the very same body; yet I do not think that your lordship will say, that every minute, insensible, and inconceivably small grain of the hundred grains, contained in that little organized seminal plant, is every one of them the very same with that grain which contains that whole seminal plant, and all those invisible grains in it. For then it will follow, that one grain is the same with an hundred, and an hundred distinct grains the same with one: which I shall be able to assent to, when I can conceive, that all the wheat in the world is but one grain.

For I beseech you, my lord, consider what it is St. Paul here speaks of: it is plain he speaks of that which is sown and dies, i. e. the grain that the husbandman takes out of his barn to sow in his field. And of this grain St. Paul says, 'that it is not that body that shall be.' These two, viz. 'that which is sown, and that body that shall be,' are all the bodies that St. Paul here speaks of, to represent the agreement or difference of men's bodies after the resurrection, with those they had before they died. Now, I crave leave to ask your lordship, which of these two is that little invisible seminal plant, which your lordship here speaks of?

* 2d Answ. † Ibid.

Does your lordship mean by it the grain that is sown? But that is not what St. Paul speaks of; he could not mean this embryonated little plant, for he could not denote it by these words, 'that which thou sowest,' for that he says must die: but this little embryonated plant, contained in the seed that is sown, dies not: or does your lordship mean by it, 'the body that shall be?' But neither by these words, 'the body that shall be,' can St. Paul be supposed to denote this insensible little embryonated plant; for that is already in being, contained in the seed that is sown, and therefore could not be spoken of under the name of the body that shall be. And therefore, I confess, I cannot see of what use it is to your lordship to introduce here this third body, which St. Paul mentions not, and to make that the same, or not the same with any other, when those which St. Paul speaks of, are, as I humbly conceive, these two visible sensible bodies, the grain sown, and the corn grown up to ear; with neither of which this insensible embryonated plant can be the same body, unless an insensible body can be the same body with a sensible body, and a little body can be the same body with one ten thousand, or an hundred thousand times as big as itself. So that yet, I confess, I see not the resurrection of the same body proved, from these words of St. Paul, to be an article of faith.

Your lordship goes on: * 'St. Paul indeed saith, That we sow not that body that shall be; but he speaks not of the identity, but the perfection of it.' Here my understanding fails me again: for I cannot understand St. Paul to say, That the same identical sensible grain of wheat, which was sown at seed-time, is the very same with every grain of wheat in the ear at harvest, that sprang from it: yet so I must understand it, to make it prove, that the same sensible body that is laid in the grave, shall be the very same with that which shall be raised at the resurrection. For I do not know of any seminal body in little, contained in the dead carcase of any man or woman, which, as your lordship says, in seeds, having its proper organical parts, shall afterwards be enlarged, and at the resurrection grow up into the same man. For I never thought of any seed or seminal parts, either of plant or animal, 'so wonderfully improved by the Providence of God,' whereby the same plant or animal should beget itself; nor ever heard, that it was by Divine Providence designed to produce the same individual, but for the producing of future and distinct individuals, for the continuation of the same species.

Your lordship's next words are, † 'And although there be such a difference from the grain itself, when it comes up to be perfect corn, with root, stalk, blade, and ear, that it may be said to outward appearance not to be the same body; yet with regard to the seminal and organical parts it is as much the same, as a man grown up, is the same with the embryo in the womb.' Answer. It does not appear, by any thing I can find in the text, that St. Paul here compared the body produced, with the seminal and organical parts contained in the grain it sprang from, but with the whole sensible grain that was grown. Microscopes had not then discovered the little embryo plant in the seed: and supposing it should have been revealed to St. Paul (though in the scripture we find little revelation of natural philosophy) yet an argument taken from a thing perfectly unknown to the Corinthians, whom he writ to, could be of no

* 2d Answ. † Ibid.

manner of use to them; nor serve at all either to instruct or convince them. But granting that those St. Paul writ to, knew it as well as Mr. Lewenhoek; yet your lordship thereby proves not the raising of the same body: your lordship says, it is as much the same (I crave leave to add body) 'as a man grown up is the same' (same what, I beseech your lordship?) 'with the embryo in the womb.' For that the body of the embryo in the womb, and body of the man grown up, is the same body, I think no one will say; unless he can persuade himself, that a body that is not the hundredth part of another, is the same with that other; which I think no one will do, till having renounced this dangerous way by ideas of thinking and reasoning, he has learnt to say, that a part and the whole are the same.

Your lordship goes on: * 'And although many arguments may be used to prove, that a man is not the same, because life, which depends upon the course of the blood, and the manner of respiration and nutrition, is so different in both states; yet that man would be thought ridiculous, that should seriously affirm, that it was not the same man. And your lordship says, I grant that the variation of great parcels of matter in plants, alters not the identity; and that the organization of the parts in one coherent body, partaking of one common life, makes the identity of a plant.' Answer. My lord, I think the question is not about the same man, but the same body. For though I do say, † (somewhat differently from what your lordship sets down as my words here) 'That that which 'has such an organization, as is fit to receive and distribute nourishment, 'so as to continue and frame the wood, bark, and leaves, &c. of a plant, 'in which consists the vegetable life, continues to be the same plant, as 'long as it partakes of the same life, though that life be communicated 'to new particles of matter, vitally united to the living plant:' yet I do not remember, that I any where say, that a plant, which was once no bigger than an oaten straw, and afterwards grows to be above a fathom about, is the same body, though it be still the same plant.

The well-known tree in Epping forest, called the King's Oak, which from not weighing an ounce at first, grew to have many tons of timber in it, was all along the same oak, the very same plant; but nobody, I think, will say that it was the same body when it weighed a ton, as it was when it weighed but an ounce, unless he has a mind to signalize himself by saying, that that is the same body, which has a thousand particles of different matter in it, for one particle that is the same; which is no better than to say, that a thousand different particles are but one and the same particle, and one and the same particle is a thousand different particles; a thousand times a greater absurdity, than to say half is whole, or the whole is the same with the half; which will be improved ten thousand times yet farther, if a man shall say (as your lordship seems to me to argue here) that that great oak is the very same body with the acorn it sprang from, because there was in that acorn an oak in little, which was afterwards (as your lordship expresses it) so much enlarged, as to make that mighty tree. For this embryo, if I may so call it, or oak in little, being not the hundredth, or perhaps the thousandth part of the acorn, and the acorn being not the thousandth part of the grown oak, it will be very extraordinary to prove the acorn and the grown oak to be the same body, by a way wherein it cannot be

* 2d Answ. † Essay, b. 2. c. 27. §. 4.

pretended, that above one particle of an hundred thousand, or a million, is the same in the one body, that it was in the other. From which way of reasoning, it will follow, that a nurse and her sucking child have the same body, and be past doubt, that a mother and her infant have the same body. But this is a way of certainty found out to establish the articles of faith, and to overturn the new method of certainty that your lordship says 'I have started, which is apt to leave men's minds more doubtful than before.'

And now I desire your lordship to consider of what use it is to you in the present case, to quote out of my Essay these words, 'That partaking of one common life, makes the identity of a plant;' since the question is not about the identity of a plant, but about the identity of a body; it being a very different thing to be the same plant, and to be the same body. For that which makes the same plant, does not make the same body; the one being the partaking in the same continued vegetable life, the other the consisting of the same numerical particles of matter. And therefore your lordship's inference from my words above quoted, in these which you subjoin*, seems to me a very strange one, viz. 'So that in things capable of any sort of life, the identity is consistent with a continued succession of parts; and so the wheat grown up, is the same body with the grain that was sown.' For I believe, if my words, from which you infer, 'And so the wheat grown up is the same body with the grain that was sown,' were put into a syllogism, this would hardly be brought to be the conclusion.

But your lordship goes on with consequence upon consequence, though I have not eyes acute enough every where to see the connexion, till you bring it to the resurrection of the same body. The connexion of your lordship's words† is as followeth; 'And thus the alteration of the parts of the body at the resurrection, is consistent with its identity, if its organization and life be the same; and this is a real identity of the body, which depends not upon consciousness. From whence it follows, that to make the same body, no more is required, but restoring life to the organized parts of it.' If the question were about raising the same plant, I do not say but there might be some appearance for making such an inference from my words as this, 'Whence it follows, that to make the same plant, no more is required, but to restore life to the organized parts of it.' But this deduction, wherein, from those words of mine that speak only of the identity of a plant, your lordship infers, there is no more required to make the same body, than to make the same plant, being too subtle for me, I leave to my reader to find out.

Your lordship goes on and says, ‡ that I grant likewise, 'That the 'identity of the same man consists in a participation of the same con-'tinued life, by constantly fleeting particles of matter in succession, 'vitally united to the same organized body.' Answer. I speak in these words of the identity of the same man, and your lordship thence roundly concludes; 'so that there is no difficulty of the sameness of the body.' But your lordship knows, that I do not take these two sounds, man and body, to stand for the same thing, nor the identity of the man to be the same with the identity of the body.

But let us read out your lordship's words. § 'So that there is no difficulty as to the sameness of the body, if life were continued; and if, by

* 2d Ans. † Ibid. ‡ Ibid. § Ibid.

divine power, life be restored to that material substance which was before united, by a reunion of the soul to it, there is no reason to deny the identity of the body, not from the consciousness of the soul, but from that life which is the result of the union of the soul and body.'

If I understand your lordship right, you in these words, from the passages above quoted out of my book, argue, that from those words of mine it will follow, that it is or may be the same body, that is raised at the resurrection. If so, my lord, your lordship has then proved, that my book is not inconsistent with, but conformable to this article of the resurrection of the same body, which your lordship contends for, and will have to be an article of faith: for though I do by no means deny that the same bodies shall be raised at the last day, yet I see nothing your lordship has said to prove it to be an article of faith.

But your lordship goes on with your proofs, and says, * 'But St. Paul still supposes, that it must be that material substance to which the soul was before united. For, saith he, "it is sown in corruption, it is raised in incorruption; it is sown in dishonour, it is raised in glory; it is sown in weakness, it is raised in power; it is sown a natural body, it is raised a spiritual body." Can such a material substance, which was never united to the body, be said to be sown in corruption, and weakness, and dishonour? Either, therefore, he must speak of the same body, or his meaning cannot be comprehended.' I answer, 'Can such a material substance, which was never laid in the grave, be said to be sown,' &c.? For your lordship says, † 'You do not say the same individual particles, which were united at the point of death, shall be raised at the last day;' and no other particles are laid in the grave, but such as are united at the point of death; either therefore your lordship must speak of another body, different from that which was sown, which shall be raised, or else your meaning, I think, cannot be comprehended.

But whatever be your meaning, your lordship proves it to be St. Paul's meaning, that the same body shall be raised, which was sown, in these following words, ‡ 'For what does all this relate to a conscious principle?' Answ. The scripture being express, that the same person should be raised and appear before the judgment-seat of Christ, that every one may receive according to what he had done in his body; it was very well suited to common apprehensions (which refined not about 'particles that had been vitally united to the soul') to speak of the body which each one was to have after the resurrection, as he would be apt to speak of it himself. For it being his body both before and after the resurrection, every one ordinarily speaks of his body as the same, though in a strict and philosophical sense, as your lordship speaks, it be not the very same. Thus it is no impropriety of speech to say, 'this body of mine, which was formerly strong and plump, is now weak and wasted,' though in such a sense as you are speaking here, it be not the same body. Revelation declares nothing any where concerning the same body, in your lordship's sense of the same body, which appears not to have been thought of. The apostle directly proposes nothing for or against the same body, as necessary to be believed: that which he is plain and direct in, is his opposing and condemning such curious questions about the body, which could serve only to perplex, not to confirm what was material and necessary for them to believe, viz. a day of judgment and retribution to men in a future state; and therefore it is

* 2d Ans. † Ibid. ‡ Ibid.

no wonder, that mentioning their bodies, he should use a way of speaking suited to vulgar notions, from which it would be hard positively to conclude any thing for the determining of this question (especially against expressions in the same discourse that plainly incline to the other side) in a matter which, as it appears, the apostle thought not necessary to determine, and the spirit of God thought not fit to gratify any one's curiosity in.

But your lordship says, * 'The apostle speaks plainly of that body which was once quickened, and afterwards falls to corruption, and is to be restored with more noble qualities.' I wish your lordship had quoted the words of St. Paul, wherein he speaks plainly of that numerical body that was once quickened; they would presently decide this question. But your lordship proves it by these following words of St. Paul: 'For this corruption must put on incorruption, and this mortal must put on immortality;' to which your lordship adds, 'that you do not see how he could more expressly affirm the identity of this corruptible body, with that after the resurrection.' How expressly it is affirmed by the apostle, shall be considered by and by. In the mean time, it is past doubt, that your lordship best knows what you do or do not see. But this I would be bold to say, that if St. Paul had any where in this chapter (where there are so many occasions for it, if it had been necessary to have been believed) but said in express words that the same bodies should be raised, every one else, who thinks of it, will see he had more expressly affirmed the identity of the bodies which men now have, with those they shall have after the resurrection.

The remainder of your lordship's period† is; 'And that without any respect to the principle of self-consciousness.' Ans. These words, I doubt not, have some meaning, but I must own I know not what; either towards the proof of the resurrection of the same body, or to show, that any thing I have said concerning self-consciousness, is inconsistent: for I do not remember that I have any where said, that the identity of body consisted in self-consciousness.

From your preceding words, your worship concludes thus: ‡ 'And so if the scripture be the sole foundation of our faith, this is an article of it.' My lord, to make the conclusion unquestionable, I humbly conceive the words must run thus: 'And so if the scripture, and your lordship's interpretation of it, be the sole foundation of our faith, the resurrection of the same body is an article of it.' For, with submission, your lordship has neither produced express words of scripture for it, nor so proved that to be the meaning of any of those words of scripture which you have produced for it, that a man who reads and sincerely endeavours to understand the scripture, cannot but find himself obliged to believe, as expressly, 'that the same bodies of the dead,' in your lordship's sense, shall be raised, as 'that the dead shall be raised.' And I crave leave to give your lordship this one reason for it. He who reads with attention this discourse of St. Paul § where he discourses of the resurrection, will see, that he plainly distinguishes between the dead that shall be raised, and the bodies of the dead. For it is νεκροὶ, σῶματα; οἱ are the nominative cases to ‖ ἐγείρονται, ζωοποιηθήσονται, ἐγερθήσονται, all along, and not σώματα, bodies; which one may with reason think would somewhere or other have

* 2d Ans. † Ibid. ‡ Ibid. § 1 Cor. xv.
‖ V. 15, 22, 23, 29, 32, 35, 52.

been expressed, if all this had been said to propose it as an article of faith, that the very same bodies should be raised. The same manner of speaking the spirit of God observes all through the New Testament, where it is said, * 'raise the dead, quicken or make alive the dead, the resurrection of the dead.' Nay, these very words of our Saviour, † urged by your lordship for the resurrection of the same body, run thus, Πάντες οἱ ἐν τοῖς μνημείοις ἀκούσονται τῆς φωνῆς αὐτοῦ· καὶ ἐκπορεύσονται, οἱ τὰ ἀγαθὰ ποιήσαντες εἰς ἀνάστασιν ζωῆς, οἱ δὲ τὰ φαῦλα πράξαντες εἰς ἀνάστασιν κρίσεως. Would not a well-meaning searcher of the scriptures be apt to think, that if the thing here intended by our Saviour were to teach, and propose it as an article of faith, necessary to be believed by every one, that the very same bodies of the dead should be raised; would not, I say, any one be apt to think, that if our Saviour meant so, the words should rather have been, πάντα τὰ σώματα ἃ ἐν τοῖς μνημείοις, i. e. 'all the bodies that are in the graves,' rather than 'all who are in the graves;' which must denote persons, and not precisely bodies?

Another evidence, that St. Paul makes a distinction between the dead and the bodies of the dead, so that the dead cannot be taken in this, 1 Cor. xv. to stand precisely for the bodies of the dead, are these words of the apostle, ‡ 'But some man will say, how are the dead raised? And with what bodies do they come?' Which words, 'dead' and 'they,' if supposed to stand precisely for the bodies of the dead, the question will run thus: 'How are the dead bodies raised? And with what bodies do the dead bodies come?' Which seems to have no very agreeable sense.

This therefore being so, that the Spirit of God keeps so expressly to this phrase, or form of speaking in the New Testament, 'of raising, quickening, rising, resurrection, &c. of the dead,' where the resurrection of the last day is spoken of; and that the body is not mentioned, but in answer to this question, 'With what bodies shall those dead, who are raised, come?' so that by the dead cannot precisely be meant the dead bodies: I do not see but a good christian, who reads the scripture with an intention to believe all that is there revealed to him concerning the resurrection, may acquit himself of his duty therein, without entering into the inquiry, whether the dead shall have the very same bodies or no? Which sort of inquiry the apostle, by the appellation he bestows here on him that makes it, seems not much to encourage. Nor, if he shall think himself bound to determine concerning the identity of the bodies of the dead raised at the last day, will he, by the remainder of St. Paul's answer, find the determination of the Apostle to be much in favour of the very same body; unless the being told, that the body sown, is not that body that shall be; that the body raised is as different from that which was laid down, as the flesh of man is from the flesh of beasts, fishes, and birds; or as the sun, moon, and stars are different one from another; or as different as a corruptible, weak, natural, mortal body, is from an incorruptible, powerful, spiritual, immortal body; and lastly, as different as a body that is flesh and blood, is from a body that is not flesh and blood; 'for flesh and blood cannot, says St. Paul, in this very place, ‖ inherit the kingdom of God:' unless, I say, all this, which is contained in St. Paul's words, can be supposed to be the way to deliver this as an article of

* Matt. xxii. 31. Mark xii. 26. John v. 21. Acts xvi. 7. Rom iv. 17. 2 Cor. i. 9. 1 Thess. iv. 14, 16.

† John v. 28, 29. ‡ Ver. 35. ‖ V. 50.

faith, which is required to be believed by every one, viz. 'That the dead should be raised with the very same bodies that they had before in this life;' which article proposed in these or the like plain and express words, could have left no room for doubt in the meanest capacities, nor for contest in the most perverse minds.

Your lordship adds in the next words, * 'And so it hath been always understood by the christian church, viz. That the resurrection of the same body, in your lordship's sense of the same body, is an article of faith.' Answer, What the christian church has always understood, is beyond my knowledge. But for those who coming short of your lordship's great learning, cannot gather their articles of faith from the understanding of all the whole christian church, ever since the preaching of the gospel, (who make the far greater part of christians, I think I may say nine hundred ninety and nine of a thousand) but are forced to have recourse to the scripture to find them there, I do not see, that they will easily find there this proposed as an article of faith, that there shall be a resurrection of the same body; but that there shall be a resurrection of the dead, without explicitly determining, That they shall be raised with bodies made up wholly of the same particles which were once vitally united to their souls in their former life, without the mixture of any one other particle of matter; which is that which your lordship means by the same body.

But supposing your lordship to have demonstrated this to be an article of faith, though I crave leave to own, that I do not see, that all that your lordship has said here, makes it so much as probable; What is all this to me? Yes, says your lordship in the following words, † 'My idea of personal identity is inconsistent with it, for it makes the same body which was here united to the soul, not to be necessary to the doctrine of the resurrection. But any material substance united to the same principle of consciousness, makes the same body.'

This is an argument of your lordship's which I am obliged to answer to. But is it not fit I should first understand it, before I answer it? Now here I do not well know, what it is 'to make a thing not to be necessary to the doctrine of the resurrection.' But to help myself out the best I can, with a guess, I will conjecture (which, in disputing with learned men, is not very safe) your lordship's meaning is, that 'my idea of personal identity makes it not necessary,' that for the raising the same person, the body should be the same.

Your lordship's next word is 'but;' to which I am ready to reply, But what? What does my idea of personal identity do? For something of that kind the adversative particle 'but' should, in the ordinary construction of our language, introduce, to make the proposition clear and intelligible: but here is no such thing. 'But,' is one of your lordship's privileged particles, which I must not meddle with, for fear your lordship complain of me again, 'as so severe a critic, that for the least ambiguity in any particle fill up pages in my answer, to make my book look considerable for the bulk of it.' But since this proposition here, 'my idea of personal identity makes the same body which was here united to the soul, not necessary to the doctrine of the resurrection: But any material substance being united to the same principle of consciousness, makes the same body,' is brought to prove my idea of personal identity inconsistent

* 2d Ans. † Ibid.

with the article of the resurrection; I must make it out in some direct sense or other, that I may see whether it be both true and conclusive. I therefore venture to read it thus: 'My idea of personal identity makes the same body which was here united to the soul, not to be necessary at the resurrection: but allows, that any material substance being united to the same principle of consciousness, makes the same body. Ergo, my idea of personal identity is inconsistent with the article of the resurrection of the same body.'

If this be your lordship's sense in this passage, as I here have guessed it to be, or else I know not what it is, I answer,

1. That my idea of personal identity does not allow, that any material substance, being united to the same principle of consciousness, makes the same body. I say no such thing in my book, nor any thing from whence it may be inferred; and your lordship would have done me a favour to have set down the words where I say so, or those from which you infer so, and showed how it follows from any thing I have said.

2. Granting, that it were a consequence from my idea of personal identity, that 'any material substance, being united to the same principle of consciousness, makes the same body;' this would not prove that my idea of personal identity was inconsistent with this proposition, 'that the same body shall be raised;' but, on the contrary, affirms it: since, if I affirm, as I do, that the same person shall be raised, and it be a consequence of my idea of personal identity, that 'any material substance, being united to the same principle of consciousness, makes the same body;' it follows, that if the same person be raised, the same body must be raised; and so I have herein not only said nothing inconsistent with the resurrection of the same body, but have said more for it than your lordship. For there can be nothing plainer, than that in the scripture it is revealed, that the same persons shall be raised, and appear before the judgment-seat of Christ, to answer for what they have done in their bodies. If therefore whatever matter be joined to the same principle of consciousness makes the same body, it is demonstration, that if the same persons are raised, they have the same bodies.

How then your lordship makes this an inconsistency with the resurrection, is beyond my conception. 'Yes,' says your lordship, *'it is inconsistent with it, for it makes the same body which was here united to the soul, not to be necessary.'

3. I answer, therefore, Thirdly, That this is the first time I ever learnt, that 'not necessary' was the same with 'inconsistent.' I say, that a body made up of the same numerical parts of matter, is not necessary to the making of the same person; from whence it will indeed follow, that to the resurrection of the same person, the same numerical particles of matter are not required. What does your lordship infer from hence? To wit, this: Therefore he who thinks, that the same particles of matter are not necessary to the making of the same person, cannot believe, that the same persons shall be raised with bodies made of the very same particles of matter, if God should reveal, that it shall be so, viz. That the same persons shall be raised with the same bodies they had before. Which is all one as to say, that he who thought the blowing of rams horns was not necessary in itself to the falling down of the walls of

* 2d Ans.

Jericho, could not believe, that they should fall upon the blowing of rams horns, when God had declared it should be so.

Your lordship says, 'my idea of personal identity is inconsistent with the article of the resurrection:' the reason you ground it on, is this, because it makes not the same body necessary to the making the same person. Let us grant your lordship's consequence to be good, what will follow from it? No less than this, that your lordship's notion (for I dare not say your lordship has any so dangerous things as ideas) of personal identity, is inconsistent with the article of the resurrection. The demonstration of it is thus; your lordship says, * 'It is not necessary that the body to be raised at the last day, should consist of the same particles of matter which were united at the point of death; for there must be a great alteration in them in a lingering disease, as if a fat man falls into a consumption: you do not say the same particles which the sinner had at the very time of commission of his sins; for then a long sinner must have a vast body, considering the continual spending of particles by perspiration.' And again, here your lordship says, † 'You allow the notion of personal identity to belong to the same man under several change of matter.' From which words it is evident, that your lordship supposes a person in this world may be continued and preserved the same in a body not consisting of the same individual particles of matter; and hence it demonstratively follows, That let your lordship's notion of personal identity be what it will, it makes 'the same body not to be necessary to the same person;' and therefore it is by your lordship's rule inconsistent with the article of the resurrection. When your lordship shall think fit to clear your own notion of personal identity from this inconsistency with the article of the resurrection, I do not doubt but my idea of personal identity will be thereby cleared too. Till then, all inconsistency with that article, which your lordship has here charged on mine, will unavoidably fall upon your lordship's too.

But for the clearing of both, give me leave to say, my lord, that whatsoever is not necessary, does not thereby become inconsistent. It is not necessary to the same person, that his body should always consist of the same numerical particles; this is demonstration, because the particles of the bodies of the same persons in this life change every moment, and your lordship cannot deny it: and yet this makes it not inconsistent with God's preserving, if he thinks fit, to the same persons, bodies consisting of the same numerical particles always from the resurrection to eternity. And so likewise though I say any thing that supposes it not necessary, that the same numerical particles, which were vitally united to the soul in this life, should be reunited to it at the resurrection, and constitute the body it shall then have; yet it is not inconsistent with this, that God may, if he pleases, give to every one a body consisting only of such particles as were before vitally united to his soul. And thus, I think, I have cleared my book from all that inconsistency which your lordship charges on it, and would persuade the world it has with the article of the resurrection of the dead.

Only before I leave it, I will set down the remainder of what your lordship says upon this head, that though I see not the coherence nor tendency of it, nor the force of any argument in it against me; yet that nothing may be omitted that your lordship has thought fit to entertain

* 2d Ans. † Ibid.

your reader with on this new point, nor any one have reason to suspect, that I have passed by any word of your lordship's, (on this now first introduced subject) wherein he might find your lordship had proved what you had promised in your title-page. Your remaining words are these; * 'The dispute is not how far personal identity in itself may consist in the very same material substance; for we allow the notion of personal identity to belong to the same man under several changes of matter; but whether it doth not depend upon a vital union between the soul and body, and the life, which is consequent upon it; and therefore in the resurrection, the same material substance must be re-united, or else it cannot be called a resurrection, but a renovation, i. e. it may be a new life, but not a raising the body from the dead.' I confess, I do not see how what is here ushered in by the words 'and therefore,' is a consequence from the preceding words: but as to the propriety of the name, I think it will not be much questioned, that if the same man rise who was dead, it may very properly be called the resurrection of the dead; which is the language of the scripture.

I must not part with this article of the resurrection, without returning my thanks to your lordship for making me † take notice of a fault in my Essay. When I wrote that book, I took it for granted, as I doubt not but many others have done, that the scripture had mentioned, in express terms, 'the resurrection of the body.' But upon the occasion your lordship has given me in your last letter, to look a little more narrowly into what revelation has declared concerning the resurrection, and finding no such express words in the scripture, as that 'the body shall rise or be raised, or the resurrection of the body;' I shall in the next edition of it change these words of my book, ‡ 'The dead bodies of men shall rise,' into these of the scripture, 'the dead shall rise.' Not that I question, that the dead shall be raised with bodies; but in matters of revelation, I think it not only safest, but our duty, as far as any one delivers it for revelation, to keep close to the words of the scripture, unless he will assume to himself the authority of one inspired, or make himself wiser than the Holy Spirit himself. If I had spoke of the resurrection in precisely scripture terms, I had avoided giving your lordship the occasion of making ‖ here such a verbal reflection on my words; 'What! not if there be an idea of identity as to the body?'

* 2d Ans. † Ibid. ‡ Essay, B. 4. C. 18. § 7.
‖ 2d Ans.

CHAP. XXVIII.

Of other Relations.

Proportional. §. 1. BESIDES the before-mentioned occasions of time, place, and causality, of comparing, or referring things one to another, there

are, as I have said, infinite others, some whereof I shall mention.

First, The first I shall name is some one simple idea; which being capable of parts or degrees, affords an occasion of comparing the subjects wherein it is to one another, in respect to that simple idea, v. g. whiter, sweeter, equal, more, &c. These relations depending on the equality and excess of the same simple idea, in several subjects, may be called, if one will, proportional; and that these are only conversant about those simple ideas received from sensation or reflection, is so evident, that nothing need be said to evince it.

Natural. §. 2. Secondly, Another occasion of comparing things together, or considering one thing, so as to include in that consideration some other thing, is the circumstances of their origin or beginning; which being not afterwards to be altered, make the relations depending thereon as lasting as the subjects to which they belong; v. g. father and son, brothers, cousin-germans, &c. which have their relations by one community of blood, wherein they partake in several degrees: countrymen, i. e. those who were born in the same country, or tract of ground; and these I call natural relations: wherein we may observe, that mankind have fitted their notions and words to the use of common life; and not to the truth and extent of things. For it is certain, that in reality the relation is the same betwixt the begetter and the begotten, in the several races of other animals as well as men: but yet it is seldom said, this bull is the grandfather of such a calf; or that two pigeons are cousin-germans. It is very convenient, that by distinct names these relations should be observed, and marked out in mankind; there being occasion, both in laws, and other communications one with another, to mention and take notice of men under these relations: from whence also arise the obligations of several duties amongst men. Whereas in brutes, men having very little or no cause to mind these relations, they have not thought fit to give them distinct and peculiar names. This, by the way, may give us some light into the different state and growth

of languages; which, being suited only to the convenience of communication, are proportioned to the notions men have, and the commerce of thoughts familiar amongst them; and not to the reality or extent of things, nor to the various respects might be found among them, nor the different abstract considerations might be framed about them. Where they had no philosophical notions, there they had no terms to express them: and it is no wonder men should have framed no names for those things they found no occasion to discourse of. From whence it is easy to imagine, why, as in some countries, they may have not so much as the name for a horse; and in others, where they are more careful of the pedigrees of their horses, than of their own, that there they may have not only names for particular horses, but also of their several relations of kindred one to another.

Instituted. §. 3. Thirdly, Sometimes the foundation of considering things, with reference to one another, is some act whereby any one comes by a moral right, power, or obligation to do something. Thus a general is one that hath power to command an army; and an army under a general is a collection of armed men obliged to obey one man. A citizen or a burgher, is one who has a right to certain privileges in this or that place. All this sort depending upon men's wills, or agreement in society, I call instituted, or voluntary: and may be distinguished from the natural, in that they are most, if not all of them, some way or other alterable, and separable from the persons to whom they have sometimes belonged, though neither of the substances, so related, be destroyed. Now though these are all reciprocal, as well as the rest, and contain in them a reference of two things one to the other; yet, because one of the two things often wants a relative name, importing that reference, men usually take no notice of it, and the relation is commonly overlooked: v. g. a patron and client are easily allowed to be relations, but a constable or dictator are not so readily, at first hearing, considered as such; because there is no peculiar name for those who are under the

command of a dictator, or constable, expressing a relation to either of them: though it be certain, that either of them hath a certain power over some others; and so is so far related to them, as well as a patron is to his client, or general to his army.

§. 4. Fourthly, There is another sort of relation, which is the conformity, or disagreement, men's voluntary actions have to a rule to which they are referred, and by which they are judged of; which, I think, may be called moral relation, as being that which denominates our moral actions, and deserves well to be examined; there being no part of knowledge wherein we should be more careful to get determined ideas, and avoid, as much as may be, obscurity and confusion. Human actions, when with their various ends, objects, manners, and circumstances, they are framed into distinct complex ideas, are, as has been shown, so many mixed modes, a great part whereof have names annexed to them. Thus, supposing gratitude to be a readiness to acknowledge and return kindness received, polygamy to be the having more wives than one at once; when we frame these notions thus in our minds, we have there so many determined ideas of mixed modes. But this is not all that concerns our actions; it is not enough to have determined ideas of them, and to know what names belong to such and such combinations of ideas. We have a farther and greater concernment, and that is, to know whether such actions so made up are morally good or bad. Moral.

§. 5. Good and evil, as hath been shown, b. ii. chap. 20. §. 2. and chap. 21. §. 42. are nothing but pleasure or pain, or that which occasions or procures pleasure or pain to us. Moral good and evil then is only the conformity or disagreement of our voluntary actions to some law, whereby good or evil is drawn on us by the will and power of the law-maker; which good and evil, pleasure or pain, attending our observance, or breach of the law, by the decree of the law-maker, is that we call reward and punishment. Moral good and evil.

Moral rules. §. 6. Of these moral rules, or laws, to which men generally refer, and by which they judge of the rectitude or pravity of their actions, there seem to me to be three sorts, with their three different enforcements, or rewards and punishments. For since it would be utterly in vain to suppose a rule set to the free actions of men, without annexing to it some enforcement of good and evil to determine his will, we must, wherever we suppose a law, suppose also some reward or punishment annexed to that law. It would be in vain for one intelligent being to set a rule to the actions of another, if he had it not in his power to reward the compliance with, and punish deviation from his rule, by some good and evil, that is not the natural product and consequence of the action itself. For that being a natural convenience or inconvenience, would operate of itself without a law. This, if I mistake not, is the true nature of all law, properly so called.

Laws. §. 7. The laws that men generally refer their actions to, to judge of their rectitude or obliquity, seem to me to be these three. 1. The divine law. 2. The civil law. 3. The law of opinion or reputation, if I may so call it. By the relation they bear to the first of these, men judge whether their actions are sins or duties; by the second, whether they be criminal or innocent; and by the third, whether they be virtues or vices.

Divine law, the measure of sin and duty. §. 8. First, the divine law, whereby I mean that law which God has set to the actions of men, whether promulgated to them by the light of nature, or the voice of revelation. That God has given a rule whereby men should govern themselves, I think there is nobody so brutish as to deny. He has a right to do it, we are his creatures: he has goodness and wisdom to direct our actions to that which is best; and he has power to enforce it by rewards and punishments, of infinite weight and duration in another life: for nobody can take us out of his hands. This is the only true touchstone of moral rectitude; and by comparing them to

this law it is, that men judge of the most considerable moral good or evil of their actions: that is, whether as duties or sins, they are like to procure them happiness or misery from the hands of the Almighty.

Civil law, the measure of crimes and innocence.

§. 9. Secondly, the civil law, the rule set by the commonwealth to the actions of those who belong to it, is another rule to which men refer their actions, to judge whether they be criminal or no. This law nobody overlooks, the rewards and punishments that enforce it being ready at hand, and suitable to the power that makes it; which is the force of the commonwealth, engaged to protect the lives, liberties, and possessions of those who live according to its law; and has power to take away life, liberty, or goods from him who disobeys: which is the punishment of offences committed against this law.

Philosophical law the measure of virtue and vice.

§. 10. Thirdly, the law of opinion or reputation. Virtue and vice are names pretended and supposed every-where to stand for actions in their own nature right and wrong; and as far as they really are so applied, they so far are co-incident with the divine law above-mentioned. But yet whatever is pretended, this is visible, that these names virtue and vice, in the particular instances of their application, through the several nations and societies of men in the world, are constantly attributed only to such actions as in each country and society are in reputation or discredit. Nor is it to be thought strange, that men every-where should give the name of virtue to those actions, which amongst them are judged praise-worthy; and call that vice, which they account blameable; since otherwise they would condemn themselves, if they should think any thing right, to which they allowed not commendation: any thing wrong, which they let pass without blame. Thus the measure of what is every-where called and esteemed virtue and vice, is the approbation or dislike, praise or blame, which by a secret and tacit consent establishes itself in the several societies, tribes, and clubs of men in the world; whereby several actions come to find

credit or disgrace amongst them, according to the judgment, maxims, or fashion of that place. For though men uniting into politic societies have resigned up to the public the disposing of all their force, so that they cannot employ it against any fellow-citizens, any farther than the law of the country directs; yet they retain still the power of thinking well or ill, approving or disapproving of the actions of those whom they live amongst, and converse with: and by this approbation and dislike they establish amongst themselves what they will call virtue and vice.

§. 11. That this is the common measure of virtue and vice, will appear to any one who considers, that though that passes for vice in one country, which is counted a virtue, or at least not vice in another; yet, every-where, virtue and praise, vice and blame go together. Virtue is every-where that which is thought praise-worthy; and nothing else but that which has the allowance of public esteem is called virtue *. Vir-

* Our author, in his preface to the fourth edition, taking notice how apt men have been to mistake him, added what here follows: Of this the ingenious author of the discourse concerning the nature of man has given me a late instance, to mention no other. For the civility of his expressions, and the candour that belongs to his order, forbid me to think, that he would have closed his preface with an insinuation, as if in what I had said, book ii. chap. 28, concerning the third rule which men refer their actions to, I went about to make virtue vice, and vice virtue, unless he had mistaken my meaning: which he could not have done, if he had but given himself the trouble to consider what the argument was I was then upon, and what was the chief design of that chapter, plainly enough set down in the fourth section, and those following. For I was there not laying down moral rules, but showing the original and nature of moral ideas, and enumerating the rules men make use of in moral relations, whether those rules were true or false: and, pursuant thereunto, I tell what has every-where that denomination, which in the language of that place answers to virtue, and vice in ours; which alters not the nature of things, though men do generally judge of, and denominate their actions according to the esteem and fashion of the place, or sect they are of.

If he had been at the pains to reflect on what I had said, b. i. c. 3. §. 18. and in this present chapter, §. 13, 14, 15, and 20, he would have known what I think of the eternal and unalterable nature of right and wrong, and what I call virtue and vice: and if he had observed, that, in the place he quotes, I only report as matter of fact what others call

tue and praise are so united, that they are called often by the same name. "Sunt sua præmia laudi," says Virgil; and so Cicero, "nihil habet natura præstantius, quam "honestatem, quam laudem, quam dignitatem, quam "decus;" which, he tells you, are all names for the same thing, Tusc. lib. ii. This is the language of the heathen philosophers, who well understood wherein their notions of virtue and vice consisted, and though perhaps by the different temper, education, fashion, max-

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virtue and vice, he would not have found it liable to any great exception. For, I think, I am not much out in saying, that one of the rules made use of in the world for a ground or measure of a moral relation, is that esteem and reputation which several sorts of actions find variously in the several societies of men, according to which they are there called virtues or vices; and whatever authority the learned Mr. Lowde places in his old English dictionary, I dare say it no-where tells him (if I should appeal to it) that the same action is not in credit, called and counted a virtue in one place, which being in disrepute, passes for and under the name of vice in another. The taking notice that men bestow the names of virtue and vice according to this rule of reputation, is all I have done, or can be laid to my charge to have done, towards the making vice virtue, and virtue vice. But the good man does well, and as becomes his calling, to be watchful in such points, and to take the alarm, even at expressions, which standing alone by themselves might sound ill, and be suspected.

It is to this zeal, allowable in his function, that I forgive his citing, as he does, these words of mine, in §. 11. of this chapter: 'The exhortations of inspired teachers have not feared to appeal to common repute: "Whatsoever things are lovely, whatsoever things are of good report, "if there be any virtue, if there be any praise," &c. Phil. iv. 8.' without taking notice of those immediately preceding, which introduce them, and run thus: 'whereby in the corruption of manners, the true boundaries of the law of nature, which ought to be the rule of virtue and vice, were pretty well preserved; so that even the exhortations of inspired teachers, &c.' by which words, and the rest of that section, it is plain that I brought this passage of St. Paul, not to prove that the general measure of what men call virtue and vice, throughout the world, was the reputation and fashion of each particular society within itself; but to show, that though it were so, yet, for reasons I there give, men, in that way of denominating their actions, did not for the most part much vary from the law of nature: which is that standing and unalterable rule, by which they ought to judge of the moral rectitude and pravity of their actions, and accordingly denominate them virtues or vices. Had Mr. Lowde considered this, he would have found it little to his purpose to have quoted that passage in a sense I used it not; and would, I imagine, have spared the explication he subjoins to it, as not very necessary. But I hope this second edition will give him satisfaction in the point, and

ims, or interests of different sorts of men, it fell out that what was thought praise-worthy in one place, escaped not censure in another; and so in different societies, virtues and vices were changed; yet, as to the main, they for the most part kept the same every-where. For since nothing can be more natural, than to encourage with esteem and reputation that wherein every one

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that this matter is now so expressed, as to show him there was no cause of scruple.

Though I am forced to differ from him in those apprehensions he has expressed in the latter end of his preface, concerning what I had said about virtue and vice; yet we are better agreed than he thinks, in what he says in his third chapter, p. 78. concerning natural inscription and innate notions. I shall not deny him the privilege he claims, p. 52. to state the question as he pleases, especially when he states it so, as to leave nothing in it contrary to what I have said: for, according to him, innate notions being conditional things, depending upon the concurrence of several other circumstances, in order to the soul's exerting them; all that he says for innate, imprinted, impressed notions (for of innate ideas he says nothing at all) amounts at last only to this; that there are certain propositions, which though the soul from the beginning, or when a man is born, does not know, yet by assistance from the outward senses, and the help of some previous cultivation, it may afterwards come certainly to know the truth of; which is no more than what I have affirmed in my first book. For I suppose by the soul's exerting them, he means its beginning to know them, or else the soul's exerting of notions will be to me a very unintelligible expression; and I think at best is a very unfit one in this case, it misleading men's thoughts by an insinuation, as if these notions were in the mind before the soul exerts them, i. e. before they are known: whereas truly before they are known, there is nothing of them in the mind, but a capacity to know them, when the concurrence of those circumstances, which this ingenious author thinks necessary in order to the soul's exerting them, brings them into our knowledge.

P. 52. I find him express it thus; 'these natural notions are not so imprinted upon the soul, as that they naturally and necessarily exert themselves (even in children and idiots) without any assistance from the outward senses, or without the help of some previous cultivation.' Here he says they exert themselves, as p. 78. that the soul exerts them. When he has explained to himself or others what he means by the soul's exerting innate notions, or their exerting themselves, and what that previous cultivation and circumstances, in order to their being exerted, are; he will, I suppose, find there is so little of controversy between him and me in the point, bating that he calls that exerting of notions, which I in a more vulgar style call knowing, that I have reason to think he brought in my name upon this occasion only out of the pleasure he has to speak civilly of me; which I must gratefully acknowledge he has done wherever he mentions me, not without conferring on me, as some others have done, a title I have no right to.

finds his advantage, and to blame and discountenance the contrary; it is no wonder that esteem and discredit, virtue and vice, should in a great measure every-where correspond with the unchangeable rule of right and wrong, which the law of God hath established: there being nothing that so directly and visibly secures and advances the general good of mankind in this world, as obedience to the laws he has set them, and nothing that breeds such mischiefs and confusion, as the neglect of them. And therefore men, without renouncing all sense and reason, and their own interest, which they are so constantly true to, could not generally mistake in placing their commendation and blame on that side that really deserved it not. Nay, even those men whose practice was otherwise, failed not to give their approbation right; few being depraved to that degree, as not to condemn, at least in others, the faults they themselves were guilty of: whereby, even in the corruption of manners, the true boundaries of the law of nature, which ought to be the rule of virtue and vice, were pretty well preserved. So that even the exhortations of inspired teachers have not feared to appeal to common repute: "Whatsoever is lovely, whatsoever is of good report, if there be any virtue, if there be any praise," &c. Phil. iv. 8.

Its enforcements commendation and discredit.

§. 12. If any one shall imagine that I have forgot my own notion of a law, when I make the law, whereby men judge of virtue and vice, to be nothing else but the consent of private men, who have not authority enough to make a law: especially wanting that, which is so necessary and essential to a law, a power to enforce it: I think I may say, that he who imagines commendation and disgrace not to be strong motives to men, to accommodate themselves to the opinions and rules of those with whom they converse, seems little skilled in the nature or history of mankind: the greatest part whereof he shall find to govern themselves chiefly, if not solely, by this law of fashion; and so they do that which keeps them in reputation with their company, little regard the laws of God, or the magistrate. The

penalties that attend the breach of God's laws, some, nay, perhaps most men, seldom seriously reflect on; and amongst those that do, many, whilst they break the law, entertain thoughts of future reconciliation, and making their peace for such breaches. And as to the punishments due from the laws of the commonwealth, they frequently flatter themselves with the hopes of impunity. But no man escapes the punishment of their censure and dislike, who offends against the fashion and opinion of the company he keeps, and would recommend himself to. Nor is there one of ten thousand, who is stiff and insensible enough to bear up under the constant dislike and condemnation of his own club. He must be of a strange and unusual constitution, who can content himself to live in constant disgrace and disrespute with his own particular society. Solitude many men have sought, and been reconciled to: but nobody, that has the least thought or sense of a man about him, can live in society under the constant dislike and ill opinion of his familiars, and those he converses with. This is a burden too heavy for human sufferance: and he must be made up of irreconcileable contradictions, who can take pleasure in company, and yet be insensible of contempt and disgrace from his companions.

These three laws the rules of moral good and evil.

§. 13. These three then, first, the law of God; secondly, the law of politic societies; thirdly, the law of fashion, or private censure; are those to which men variously compare their actions; and it is by their conformity to one of these laws that they take their measures, when they would judge of their moral rectitude, and denominate their actions good or bad.

Morality is the relation of actions to these rules.

§. 14. Whether the rule, to which, as to a touchstone, we bring our voluntary actions, to examine them by, and try their goodness, and accordingly to name them: which is, as it were, the mark of the value we set upon them: whether, I say, we take that rule from the fashion of the country, or the will of a lawmaker, the mind is easily able to observe the relation

any action hath to it, and to judge whether the action agrees or disagrees with the rule; and so hath a notion of moral goodness or evil, which is either conformity or not conformity of any action to that rule: and therefore is often called moral rectitude. This rule being nothing but a collection of several simple ideas, the conformity thereto is but so ordering the action, that the simple ideas belonging to it may correspond to those which the law requires. And thus we see how moral beings and notions are founded on, and terminated in these simple ideas we have received from sensation or reflection. For example, let us consider the complex idea we signify by the word murder; and when we have taken it asunder, and examined all the particulars, we shall find them to amount to a collection of simple ideas derived from reflection or sensation, viz. first, from reflection on the operations of our own minds, we have the ideas of willing, considering, purposing before-hand, malice, or wishing ill to another; and also of life, or perception, and self-motion. Secondly, from sensation we have the collection of those simple sensible ideas which are to be found in a man, and of some action, whereby we put an end to perception and motion in the man; all which simple ideas are comprehended in the word murder. This collection of simple ideas being found by me to agree or disagree with the esteem of the country I have been bred in, and to be held by most men there worthy praise or blame, I call the action virtuous or vicious: if I have the will of a supreme invisible law-giver for my rule; then, as I supposed the action commanded or forbidden by God, I call it good or evil, sin or duty: and if I compare it to the civil law, the rule made by the legislative power of the country, I call it lawful or unlawful, a crime or no crime. So that whencesoever we take the rule of moral actions, or by what standard soever we frame in our minds the ideas of virtues or vices, they consist only and are made up of collections of simple ideas, which we originally received from sense or reflection, and their rectitude or obliquity consists

in the agreement or disagreement with those patterns prescribed by some law.

§. 15. To conceive rightly of moral actions, we must take notice of them under this two-fold consideration. First, as they are in themselves each made up of such a collection of simple ideas. Thus drunkenness, or lying, signify such or such a collection of simple ideas, which I call mixed modes, and in this sense they are as much positive absolute ideas, as the drinking of a horse, or speaking of a parrot. Secondly, our actions are considered as good, bad, or indifferent; and in this respect they are relative, it being their conformity to, or disagreement with some rule that makes them to be regular or irregular, good or bad: and so, as far as they are compared with a rule, and thereupon denominated, they come under relation. Thus the challenging and fighting with a man, as it is a certain positive mode, or particular sort of action, by particular ideas, distinguished from all others, is called duelling: which, when considered in relation to the law of God, will deserve the name sin; to the law of fashion, in some countries, valour and virtue; and to the municipal laws of some governments, a capital crime. In this case, when the positive mode has one name, and another name as it stands in relation to the law, the distinction may as easily be observed, as it is in substances, where one name, v. g. man, is used to signify the thing; another, v. g. father, to signify the relation.

The denominations of actions often mislead us.

§. 16. But because very frequently the positive idea of the action, and its moral relation, are comprehended together under one name, and the same word made use of to express both the mode or action, and its moral rectitude or obliquity; therefore the relation itself is less taken notice of, and there is often no distinction made between the positive idea of the action, and the reference it has to a rule. By which confusion of these two distinct considerations under one term, those who yield too easily to the impressions of sounds, and are forward to take names for things, are often misled in their judgment of actions. Thus the taking from an-

other what is his, without his knowledge or allowance, is properly called stealing; but that name being commonly understood to signify also the moral pravity of the action, and to denote its contrariety to the law, men are apt to condemn whatever they hear called stealing as an ill action, disagreeing with the rule of right. And yet the private taking away his sword from a madman, to prevent his doing mischief, though it be properly denominated stealing, as the name of such a mixed mode; yet when compared to the law of God, and considered in its relation to that supreme rule, it is no sin or transgression, though the name stealing ordinarily carries such an intimation with it.

§. 17. And thus much for the relation of human actions to a law, which therefore I call moral relation. Relations innumerable.

It would make a volume to go over all sorts of relations; it is not therefore to be expected that I should here mention them all. It suffices to our present purpose to show by these, what the ideas are we have of this comprehensive consideration, called relation: which is so various, and the occasions of it so many (as many as there can be of comparing things one to another) that it is not very easy to reduce it to rules, or under just heads. Those I have mentioned, I think, are some of the most considerable, and such as may serve to let us see from whence we get our ideas of relations, and wherein they are founded. But before I quit this argument, from what has been said, give me leave to observe;

§. 18. First, That it is evident, that all relation terminates in, and is ultimately founded on those simple ideas we have got from sensation or reflection: so that all that we have in our thoughts ourselves (if we think of any thing, or have any meaning) or would signify to others, when we use words standing for relations, is nothing but some simple ideas, or collections of simple ideas, compared one with another. This is so manifest in that sort called proportional, that nothing can be more: for when a man says, honey is sweeter than wax, it is plain that his All relations terminate in simple ideas.

thoughts in this relation terminate in this simple idea, sweetness, which is equally true of all the rest; though where they are compounded or decompounded, the simple ideas they are made up of are, perhaps, seldom taken notice of. V. g. when the word father is mentioned; first, there is meant that particular species, or collective idea, signified by the word man. Secondly, those sensible simple ideas, signified by the word generation: and, thirdly, the effects of it, and all the simple ideas signified by the word child. So the word friend being taken for a man, who loves, and is ready to do good to another, has all these following ideas to the making of it up: first, all the simple ideas, comprehended in the word man, or intelligent being. Secondly, the idea of love. Thirdly, the idea of readiness or disposition. Fourthly, the idea of action, which is any kind of thought or motion. Fifthly, the idea of good, which signifies any thing that may advance his happiness, and terminates at last, if examined, in particular simple ideas; of which the word good in general signifies any one, but, if removed from all simple ideas quite, it signifies nothing at all. And thus also all moral words terminate at last, though perhaps more remotely, in a collection of simple ideas; the immediate signification of relative words, being very often other supposed known relations; which, if traced one to another, still end in simple ideas.

We have ordinarily as clear (or clearer) a notion of the relation, as of its foundation.

§. 19. Secondly, That in relations we have for the most part, if not always, as clear a notion of the relation, as we have of those simple ideas, wherein it is founded. Agreement or disagreement, whereon relation depends, being things whereof we have commonly as clear ideas, as of any other whatsoever; it being but the distinguishing simple ideas, or their degrees one from another, without which we could have no distinct knowledge at all. For if I have a clear idea of sweetness, light or extension, I have too, of equal, or more or less of each of these: if I know what it is for one man to be born of a woman, viz. Sempronia, I know what it is for another

man to be born of the same woman Sempronia; and so have as clear a notion of brothers, as of births, and perhaps clearer. For if I believed that Sempronia dug Titus out of the parsley-bed (as they used to tell children) and thereby became his mother; and that afterwards, in the same manner, she dug Caius out of the parsley-bed; I had as clear a notion of the relation of brothers between them, as if I had all the skill of a midwife: the notion that the same woman contributed, as mother, equally to their births, (though I were ignorant or mistaken in the manner of it), being that on which I grounded the relation, and that they agreed in that circumstance of birth, let it be what it will. The comparing them then in their descent from the same person, without knowing the particular circumstances of that descent, is enough to found my notion of their having or not having the relation of brothers. But though the ideas of particular relations are capable of being as clear and distinct in the minds of those, who will duly consider them, as those of mixed modes, and more determinate than those of substances; yet the names belonging to relation are often of as doubtful and uncertain signification, as those of substances or mixed modes, and much more than those of simple ideas: because relative words being the marks of this comparison, which is made only by men's thoughts, and is an idea only in men's minds, men frequently apply them to different comparisons of things, according to their own imaginations, which do not always correspond with those of others using the same name.

The notion of the relation is the same, whether the rule any action is compared to be true or false.

§. 20. Thirdly, That in these I call moral relations, I have a true notion of relation by comparing the action with the rule, whether the rule be true or false. For if I measure any thing by a yard, I know whether the thing I measure be longer or shorter than that supposed yard, though perhaps the yard I measure by be not exactly the standard; which indeed is another inquiry. For though the rule be erroneous, and I mistaken in it; yet the agreement or disagreement observable in that which I

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compare with, makes me perceive the relation. Though measuring by a wrong rule, I shall thereby be brought to judge amiss of its moral rectitude, because I have tried it by that which is not the true rule; yet I am not mistaken in the relation which that action bears to that rule I compare it to, which is agreement or disagreement.

CHAP. XXIX.

Of Clear and Obscure, Distinct and Confused Ideas.

Ideas, some clear and distinct, others obscure and confused.

§. 1. HAVING shown the original of our ideas, and taken a view of their several sorts; considered the difference between the simple and the complex, and observed how the complex ones are divided into those of modes, substances, and relations; all which, I think, is necessary to be done by any one, who would acquaint himself thoroughly with the progress of the mind in its apprehension and knowledge of things: it will, perhaps, be thought I have dwelt long enough upon the examination of ideas. I must, nevertheless, crave leave to offer some few other considerations concerning them. The first is, that some are clear, and others obscure; some distinct, and others confused.

Clear and obscure explained by sight.

§. 2. The perception of the mind being most aptly explained by words relating to the sight, we shall best understand what is meant by clear and obscure in our ideas, by reflecting on what we call clear and obscure in the objects of sight. Light being that which discovers to us visible objects, we give the name of obscure to that which is not placed in a light sufficient to discover minutely to us the figure and colours, which are observable in it, and which, in a better light, would be discernible. In like manner our simple ideas are clear, when they are such as the objects themselves,

from whence they were taken, did or might, in a well-ordered sensation or perception, present them. Whilst the memory retains them thus, and can produce them to the mind, whenever it has occasion to consider them, they are clear ideas. So far as they either want any thing of the original exactness, or have lost any of their first freshness, and are, as it were, faded or tarnished by time; so far are they obscure. Complex ideas, as they are made up of simple ones, so they are clear when the ideas that go to their composition are clear: and the number and order of those simple ideas, that are the ingredients of any complex one, is determinate and certain.

Causes of obscurity.

§. 3. The causes of obscurity in simple ideas seem to be either dull organs, or very slight and transient impressions made by the objects, or else a weakness in the memory not able to retain them as received. For, to return again to visible objects to help us to apprehend this matter: if the organs or faculties of perception, like wax over-hardened with cold, will not receive the impression of the seal, from the usual impulse wont to imprint it; or, like wax of a temper too soft, will not hold it well when well imprinted; or else supposing the wax of a temper fit, but the seal not applied with a sufficient force to make a clear impression: in any of these cases the print left by the seal will be obscure. This, I suppose, needs no application to make it plainer.

Distinct and confused, what.

§. 4. As a clear idea is that whereof the mind has such a full and evident perception, as it does receive from an outward object operating duly on a well-disposed organ; so a distinct idea is that wherein the mind perceives a difference from all other; and a confused idea is such a one, as is not sufficiently distinguishable from another, from which it ought to be different.

Objection.

§. 5. If no idea be confused, but such as is not sufficiently distinguishable from another, from which it should be different; it will be hard, may any one say, to find any where a confused

idea. For let any idea be as it will, it can be no other but such as the mind perceives it to be; and that very perception sufficiently distinguishes it from all other eas, which cannot be other, i. e. different, without being perceived to be so. No idea therefore can be undistinguishable from another, from which it ought to be different, unless you would have it different from itself: for from all other it is evidently different.

Confusion of ideas is in reference to their names.

§. 6. To remove this difficulty, and to help us to conceive aright what it is that makes the confusion ideas are at any time chargeable with, we must consider, that things ranked under distinct names are supposed different enough to be distinguished, and so each sort by its peculiar name may be marked, and discoursed of a-part upon any occasion: and there is nothing more evident, than that the greatest part of different names are supposed to stand for different things. Now every idea a man has being visibly what it is, and distinct from all other ideas but itself; that which makes it confused, is, when it is such, that it may as well be called by another name, as that which it is expressed by: the difference which keeps the things (to be ranked under those two different names) distinct, and makes some of them belong rather to the one, and some of them to the other of those names, being left out; and so the distinction, which was intended to be kept up by those different names, is quite lost.

Defaults which make confusion.

§. 7. The defaults which usually occasion this confusion, I think, are chiefly these following:

First, complex ideas made up of too few simple ones.

First, when any complex idea (for it is complex ideas that are most liable to confusion) is made up of too small a number of simple ideas, and such only as are common to other things, whereby the differences that make it deserve a different name, are left out. Thus he that has an idea made up of barely the simple ones of a beast with spots, has but a confused idea of a leopard; it not being thereby sufficiently distinguished from a lynx, and several other sorts of beasts that are

spotted. So that such an idea, though it hath the peculiar name leopard, is not distinguishable from those designed by the names lynx or panther, and may as well come under the name lynx as leopard. How much the custom of defining of words by general terms contributes to make the ideas we would express by them confused and undetermined, I leave others to consider. This is evident, that confused ideas are such as render the use of words uncertain, and take away the benefit of distinct names. When the ideas, for which we use different terms, have not a difference answerable to their distinct names, and so cannot be distinguished by them, there it is that they are truly confused.

Secondly, or its simple ones jumbled disorderly together.

§. 8. Secondly, Another fault which makes our ideas confused, is, when though the particulars that make up any idea are in number enough: yet they are so jumbled together, that it is not easily discernible, whether it more belongs to the name that is given it, than to any other. There is nothing properer to make us conceive this confusion, than a sort of pictures usually shown as surprising pieces of art, wherein the colours, as they are laid by the pencil on the table itself, mark out very odd and unusual figures, and have no discernible order in their position. This draught, thus made up of parts wherein no symmetry nor order appears, is in itself no more a confused thing, than the picture of a cloudy sky; wherein though there be as little order of colours or figures to be found, yet nobody thinks it a confused picture. What is it then that makes it be thought confused, since the want of symmetry does not? as it is plain it does not; for another draught made, barely in imitation of this, could not be called confused. I answer, that which makes it be thought confused, is, the applying it to some name, to which it does no more discernibly belong, than to some other: v. g. When it is said to be the picture of a man, or Cæsar, then any one with reason counts it confused: because it is not discernible, in that state, to belong more to the name man, or Cæsar, than to the name baboon, or Pompey; which are supposed to stand for

different ideas from those signified by man, or Cæsar. But when a cylindrical mirrour, placed right, hath reduced those irregular lines on the table into their due order and proportion, then the confusion ceases, and the eye presently sees that it is a man, or Cæsar, i. e. that it belongs to those names; and that it is sufficiently distinguishable from a baboon, or Pompey, i. e. from the ideas signified by those names. Just thus it is with our ideas, which are as it were the pictures of things. No one of these mental draughts, however the parts are put together, can be called confused (for they are plainly discernible as they are) till it be ranked under some ordinary name, to which it cannot be discerned to belong, any more than it does to some other name of an allowed different signification.

Thirdly, or are mutable and undetermined.

§. 9. Thirdly, A third defect that frequently gives the name of confused to our ideas, is, when any one of them is uncertain and undetermined. Thus we may observe men, who not forbearing to use the ordinary words of their language, till they have learned their precise signification, change the idea they make this or that term stand for, almost as often as they use it. He that does this, out of uncertainty of what he should leave out, or put into his idea of church or idolatry, every time he thinks of either, and holds not steady to any one precise combination of ideas that makes it up, is said to have a confused idea of idolatry or the church: though this be still for the same reason as the former, viz. because a mutable idea (if we will allow it to be one idea) cannot belong to one name rather than another; and so loses the distinction that distinct names are designed for.

Confusion, without reference to names, hardly conceivable.

§. 10. By what has been said, we may observe how much names, as supposed steady signs of things, and by their difference to stand for and keep things distinct that in themselves are different, are the occasion of denominating ideas distinct or confused, by a secret and unobserved reference the mind makes of its ideas to such names. This perhaps

will be fuller understood, after what I say of words, in the third book, has been read and considered. But without taking notice of such a reference of ideas to distinct names, as the signs of distinct things, it will be hard to say what a confused idea is. And therefore when a man designs, by any name, a sort of things, or any one particular thing, distinct from all others, the complex idea he annexes to that name is the more distinct, the more particular the ideas are, and the greater and more determinate the number and order of them is, whereof it is made up. For the more it has of these, the more it has still of the perceivable differences, whereby it is kept separate and distinct from all ideas belonging to other names, even those that approach nearest to it, and thereby all confusion with them is avoided.

Confusion concerns always two ideas.

§. 11. Confusion, making it a difficulty to separate two things that should be separated, concerns always two ideas, and those most, which most approach one another. Whenever therefore we suspect any idea to be confused, we must examine what other it is in danger to be confounded with, or which it cannot easily be separated from; and that will always be found an idea belonging to another name, and so should be a different thing, from which yet it is not sufficiently distinct; being either the same with it, or making a part of it, or at least as properly called by that name, as the other it is ranked under; and so keeps not that difference from that other idea, which the different names import.

Causes of confusion.

§. 12. This, I think, is the confusion proper to ideas, which still carries with it a secret reference to names. At least, if there be any other confusion of ideas, this is that which most of all disorders men's thoughts and discourses: ideas, as ranked under names, being those that for the most part men reason of within themselves, and always those which they commune about with others. And therefore where there are supposed two different ideas marked by two different names, which are not as distinguishable as the sounds that stand for them, there never fails

to be confusion: and where any ideas are distinct as the ideas of those two sounds they are marked by, there can be between them no confusion. The way to prevent it is to collect and unite into one complex idea, as precisely as is possible, all those ingredients whereby it is differenced from others; and to them so united in a determinate number and order, apply steadily the same name. But this neither accommodating men's ease or vanity, or serving any design but that of naked truth, which is not always the thing aimed at, such exactness is rather to be wished than hoped for. And since the loose application of names to undetermined, variable, and almost no ideas, serves both to cover our own ignorance, as well as to perplex and confound others, which goes for learning and superiority in knowledge, it is no wonder that most men should use it themselves, whilst they complain of it in others. Though, I think, no small part of the confusion to be found in the notions of men might by care and ingenuity be avoided, yet I am far from concluding it every-where wilful. Some ideas are so complex, and made up of so many parts, that the memory does not easily retain the very same precise combination of simple ideas under one name; much less are we able constantly to divine for what precise complex idea such a name stands in another man's use of it. From the first of these, follows confusion in a man's own reasonings and opinions within himself; from the latter, frequent confusion in discoursing and arguing with others. But having more at large treated of words, their defects and abuses, in the following book, I shall here say no more of it.

Complex ideas may be distinct in one part, and confused in another.

§. 13. Our complex ideas being made up of collections, and so variety of simple ones, may accordingly be very clear and distinct in one part, and very obscure and confused in another. In a man who speaks of a chiliaedron, or a body of a thousand sides, the ideas of the figure may be very confused, though that of the number be very distinct; so that he being able to discourse and demonstrate concerning that part

of his complex idea, which depends upon the number of a thousand, he is apt to think he has a distinct idea of a chiliaedron; though it be plain he has no precise idea of its figure, so as to distinguish it by that, from one that has but 999 sides; the not observing whereof causes no small errour in men's thoughts, and confusion in their discourses.

§. 14. He that thinks he has a distinct idea of the figure of a chiliaedron, let him for trial-sake take another parcel of the same uniform matter, viz. gold, or wax, of an equal bulk, and make it into a figure of 999 sides; he will, I doubt not, be able to distinguish these two ideas one from another, by the number of sides; and reason and argue distinctly about them, whilst he keeps his thoughts and reasoning to that part only of these ideas, which is contained in their numbers; as that the sides of the one could be divided into two equal numbers, and of the others not, &c. But when he goes about to distinguish them by their figure, he will there be presently at a loss, and not be able, I think, to frame in his mind two ideas, one of them distinct from the other, by the bare figure of these two pieces of gold; as he could, if the same parcels of gold were made one into a cube, the other a figure of five sides. In which incomplete ideas, we are very apt to impose on ourselves, and wrangle with others, especially where they have particular and familiar names. For being satisfied in that part of the idea, which we have clear; and the name which is familiar to us, being applied to the whole, containing that part also which is imperfect and obscure: we are apt to use it for that confused part, and draw deductions from it, in the obscure part of its signification, as confidently as we do from the other.

This, if not heeded, causes confusion in our arguings.

§. 15. Having frequently in our mouths the name eternity, we are apt to think we have a positive comprehensive idea of it, which is as much as to say, that there is no part of that duration which is not clearly contained in our idea. It is true that he that thinks so may have a clear idea of

Instance in eternity.

duration; he may also have a very clear idea of a very great length of duration; he may also have a clear idea of the comparison of that great one with still a greater: but it not being possible for him to include in his idea of any duration, let it be as great as it will, the whole extent together of a duration, where he supposes no end, that part of his idea, which is still beyond the bounds of that large duration, he represents to his own thoughts, is very obscure and undetermined. And hence it is that in disputes and reasonings concerning eternity, or any other infinite, we are apt to blunder, and involve ourselves in manifest absurdities.

Divisibility of matter.

§. 16. In matter we have no clear ideas of the smallness of parts much beyond the smallest that occur to any of our senses: and therefore when we talk of the divisibility of matter in infinitum, though we have clear ideas of division and divisibility, and have also clear ideas of parts made out of a whole by division; yet we have but very obscure and confused ideas of corpuscles, or minute bodies so to be divided, when by former divisions they are reduced to a smallness much exceeding the perception of any of our senses; and so all that we have clear and distinct ideas of, is of what division in general or abstractedly is, and the relation of totum and parts: but of the bulk of the body, to be thus infinitely divided after certain progressions, I think, we have no clear nor distinct idea at all. For I ask any one, whether taking the smallest atom of dust he ever saw, he has any distinct idea (bating still the number, which concerns not extension) betwixt the 100,000th, and the 1,000,000th part of it. Or if he thinks he can refine his ideas to that degree, without losing sight of them, let him add ten cyphers to each of those numbers. Such a degree of smallness is not unreasonable to be supposed, since a division carried on so far brings it no nearer the end of infinite division, than the first division into two halves does. I must confess, for my part, I have no clear distinct ideas of the different bulk or extension of those bodies, having but a very obscure one of either of them. So that, I think, when we talk of division of bodies in infinitum, our idea of their

distinct bulks, which is the subject and foundation of division, comes, after a little progression, to be confounded, and almost lost in obscurity. For that idea, which is to represent only bigness, must be very obscure and confused, which we cannot distinguish from one ten times as big, but only by number; so that we have clear distinct ideas, we may say, of ten and one, but no distinct ideas of two such extensions. It is plain from hence, that when we talk of infinite divisibility of body, or extension, our distinct and clear ideas are only of numbers; but the clear distinct ideas of extension, after some progress of division, are quite lost: and of such minute parts we have no distinct ideas at all: but it returns, as all our ideas of infinite do, at last to that of number always to be added; but thereby never amounts to any distinct idea of actual infinite parts. We have, it is true, a clear idea of division, as often as we think of it; but thereby we have no more a clear idea of infinite parts in matter, than we have a clear idea of an infinite number, by being able still to add new numbers to any assigned numbers we have: endless divisibility giving us no more a clear and distinct idea of actually infinite parts, than endless addibility (if I may so speak) gives us a clear and distinct idea of an actually infinite number; they both being only in a power still of increasing the number, be it already as great as it will. So that of what remains to be added (wherein consists the infinity) we have but an obscure, imperfect, and confused idea, from or about which we can argue or reason with no certainty or clearness, no more than we can in arithmetic, about a number of which we have no such distinct idea as we have of 4 or 100; but only this relative obscure one, that compared to any other, it is still bigger; and we have no more a clear positive idea of it when we say or conceive it is bigger, or more than 400,000,000, than if we should say it is bigger than 40, or 4; 400,000,000 having no nearer a proportion to the end of addition, or number, than 4. For he that adds only 4 to 4, and so proceeds, shall as soon come to the end of all addition, as he that adds 400,000,000

to 400,000,000. And so likewise in eternity, he that has an idea of but four years, has as much a positive complete idea of eternity, as he that has one of 400,000,000 of years: for what remains of eternity beyond either of these two numbers of years is as clear to the one as the other; i. e. neither of them has any clear positive idea of it at all. For he that adds only four years to 4, and so on, shall as soon reach eternity, as he that adds 400,000,000 of years, and so on; or, if he please, doubles the increase as often as he will: the remaining abyss being still as far beyond the end of all these progressions, as it is from the length of a day or an hour. For nothing finite bears any proportion to infinite; and therefore our ideas, which are all finite, cannot bear any. Thus it is also in our idea of extension, when we increase it by addition, as well as when we diminish it by division, and would enlarge our thoughts to infinite space. After a few doublings of those ideas of extension, which are the largest we are accustomed to have, we lose the clear distinct idea of that space: it becomes a confusedly great one, with a surplus of still greater; about which, when we would argue or reason, we shall always find ourselves at a loss; confused ideas in our arguings and deductions from that part of them which is confused always leading us into confusion.

CHAP. XXX.

Of Real and Fantastical Ideas.

Real ideas are conformable to their archetypes.

§. 1. BESIDES what we have already mentioned concerning ideas, other considerations belong to them, in reference to things from whence they are taken, or which they may be supposed to represent: and thus, I think, they may come under a threefold distinction; and are

First, either real or fantastical.

Secondly, adequate or inadequate.

Thirdly, true or false.

First, by real ideas, I mean such as have a foundation in nature; such as have a conformity with the real being and existence of things, or with their archetypes. Fantastical or chimerical I call such as have no foundation in nature, nor have any conformity with that reality of being to which they are tacitly referred as to their archetypes. If we examine the several sorts of ideas before-mentioned, we shall find, that,

§. 2. First, our simple ideas are all real, all agree to the reality of things, not that they are all of them the images or representations of what does exist; the contrary whereof, in all but the primary qualities of bodies, hath been already shown. But though whiteness and coldness are no more in snow than pain is; yet those ideas of whiteness and coldness, pain, &c. being in us the effects of powers in things without us, ordained by our Maker to produce in us such sensations; they are real ideas in us, whereby we distinguish the qualities that are really in things themselves. For these several appearances being designed to be the mark, whereby we are to know and distinguish things which we have to do with, our ideas do as well serve us to that purpose, and are as real distinguishing characters, whether they be only constant effects, or else exact resemblances of something in the things themselves; the reality lying in that steady correspondence they have with the distinct constitutions of real beings. But whether they answer to those constitutions, as to causes or patterns, it matters not; it suffices that they are constantly produced by them. And thus our simple ideas are all real and true, because they answer and agree to those powers of things which produce them in our minds; that being all that is requisite to make them real, and not fictions at pleasure. For in simple ideas (as has been shown) the mind is wholly confined to the operation of things upon it and can make to itself no simple idea, more than what it has received. Simple ideas all real.

Complex ideas are voluntary combinations.

§. 3. Though the mind be wholly passive in respect of its simple ideas; yet I think, we may say, it is not so in respect of its complex ideas: for those being combinations of simple ideas put together, and united under one general name; it is plain that the mind of man uses some kind of liberty in forming those complex ideas: how else comes it to pass that one man's idea of gold, or justice, is different from another's? but because he has put in or left out of his, some simple idea, which the other has not. The question then is, which of these are real, and which barely imaginary combinations? What collections agree to the reality of things, and what not? And to this I say, That,

Mixed modes made of consistent ideas, are real.

§. 4. Secondly, mixed modes and relations having no other reality but what they have in the minds of men, there is nothing more required to this kind of ideas to make them real, but that they be so framed, that there be a possibility of existing conformable to them. These ideas themselves, being archetypes, cannot differ from their archetypes, and so cannot be chimerical, unless any one will jumble together in them inconsistent ideas. Indeed, as any of them have the names of a known language assigned to them, by which he that has them in his mind would signify them to others, so bare possibility of existing is not enough; they must have a conformity to the ordinary signification of the name that is given them, that they may not be thought fantastical: as if a man would give the name of justice to that idea, which common use calls liberality. But this fantasticalness relates more to propriety of speech, than reality of ideas: for a man to be undisturbed in danger, sedately to consider what is fittest to be done, and to execute it steadily, is a mixed mode, or a complex idea of an action which may exist. But to be undisturbed in danger, without using one's reason or industry, is what is also possible to be; and so is as real an idea as the other. Though the first of

these, having the name courage given to it, may, in respect of that name, be a right or wrong idea: but the other, whilst it has not a common received name of any known language assigned to it, is not capable of any deformity, being made with no reference to any thing but itself.

Ideas of substances are real, when they agree with the existence of things.

§. 5. Thirdly, our complex ideas of substances being made all of them in reference to things existing without us, and intended to be representations of substances, as they really are; are no farther real, than as they are such combinations of simple ideas, as are really united, and co-exist in things without us. On the contrary, those are fantastical which are made up of such collections of simple ideas as were really never united, never were found together in any substance; v. g. a rational creature, consisting of a horse's head, joined to a body of human shape, or such as the centaurs are described: or, a body yellow, very malleable, fusible, and fixed; but lighter than common water: or an uniform, unorganized body, consisting, as to sense, all of similar parts, with perception and voluntary motion joined to it. Whether such substances as these can possibly exist or no, it is probable we do not know: but be that as it will, these ideas of substances being made conformable to no pattern existing that we know, and consisting of such collections of ideas, as no substance ever showed us united together, they ought to pass with us for barely imaginary: but much more are those complex ideas so, which contain in them any inconsistency or contradiction of their parts.

CHAP. XXXI.

Of Adequate and Inadequate Ideas.

Adequate ideas are such as perfectly represent their archetypes.

§. 1. OF our real ideas, some are adequate, and some are inadequate. Those I call adequate, which perfectly represent those archetypes which the mind supposes them taken from; which it intends them to stand for, and to which it refers them. Inadequate ideas are such, which are but a partial or incomplete representation of those archetypes to which they are referred. Upon which account it is plain,

Simple ideas all adequate.

§. 2. First, that all our simple ideas are adequate. Because being nothing but the effects of certain powers in things, fitted and ordained by God to produce such sensations in us, they cannot but be correspondent and adequate to those powers: and we are sure they agree to the reality of things. For if sugar produce in us the ideas which we call whiteness and sweetness, we are sure there is a power in sugar to produce those ideas in our minds, or else they could not have been produced by it. And so each sensation answering the power that operates on any of our senses, the idea so produced is a real idea, (and not a fiction of the mind, which has no power to produce any simple idea;) and cannot but be adequate, since it ought only to answer that power: and so all simple ideas are adequate. It is true, the things producing in us these simple ideas are but few of them denominated by us, as if they were only the causes of them; but as if those ideas were real beings in them. For though fire be called painful to the touch, whereby is signified the power of producing in us the idea of pain, yet it is denominated also light and hot; as if light and heat were really something in the fire more than a power to excite these ideas in us; and therefore are called qualities in, or of the fire. But these being

nothing, in truth, but powers to excite such ideas in us, I must in that sense be understood, when I speak of secondary qualities, as being in things; or of their ideas, as being the objects that excite them in us. Such ways of speaking, though accommodated to the vulgar notions, without which one cannot be well understood, yet truly signify nothing but those powers which are in things to excite certain sensations or ideas in us: since were there no fit organs to receive the impressions fire makes on the sight and touch, nor a mind joined to those organs to receive the ideas of light and heat by those impressions from the fire or sun, there would yet be no more light or heat in the world, than there would be pain, if there were no sensible creature to feel it, though the sun should continue just as it is now, and mount Ætna flame higher than ever it did. Solidity and extension, and the termination of it, figure, with motion and rest, whereof we have the ideas, would be really in the world as they are, whether there were any sensible being to perceive them or no: and therefore we have reason to look on those as the real modifications of matter, and such are the exciting causes of all our various sensations from bodies. But this being an inquiry not belonging to this place, I shall enter no farther into it, but proceed to show what complex ideas are adequate, and what not.

Modes are all adequate

§. 3. Secondly, our complex ideas of modes, being voluntary collections of simple ideas, which the mind puts together without reference to any real archetypes or standing patterns existing any-where, are and cannot but be adequate ideas. Because they not being intended for copies of things really existing, but for archetypes made by the mind to rank and denominate things by, cannot want any thing: they having each of them that combination of ideas, and thereby that perfection which the mind intended they should: so that the mind acquiesces in them, and can find nothing wanting. Thus by having the idea of a figure, with three sides meeting at three angles, I have a complete idea, wherein I require nothing else to make it perfect. That the

mind is satisfied with the perfection of this its idea, is plain in that it does not conceive, that any understanding hath, or can have a more complete or perfect idea of that thing it signifies by the word triangle, supposing it to exist, than itself has in that complex idea of three sides and three angles; in which is contained all that is, or can be essential to it, or necessary to complete it, wherever or however it exists. But in our ideas of substances it is otherwise. For there desiring to copy things as they really do exist, and to represent to ourselves that constitution on which all their properties depend, we perceive our ideas attain not that perfection we intend: we find they still want something we should be glad were in them; and so are all inadequate. But mixed modes and relations, being archetypes without patterns, and so having nothing to represent but themselves, cannot but be adequate, every thing being so to itself. He that at first put together the idea of danger perceived, absence of disorder from fear, sedate consideration of what was justly to be done, and executing that without disturbance, or being deterred by the danger of it, had certainly in his mind that complex idea made up of that combination; and intending it to be nothing else, but what is, nor to have in it any other simple ideas; but what it hath, it could not also but be an adequate idea: and laying this up in his memory, with the name courage annexed to it, to signify to others, and denominate from thence any action he should observe to agree with it, had thereby a standard to measure and denominate actions by, as they agreed to it. This idea thus made, and laid up for a pattern, must necessarily be adequate, being referred to nothing else but itself, nor made by any other original, but the good-liking and will of him that first made this combination.

Modes, in reference to settled names, may be inadequate.

§. 4. Indeed another coming after, and in conversation learning from him the word courage, may make an idea, to which he gives the name courage, different from what the first author applied it to, and has in his mind, when he uses it. And in

this case, if he designs that his idea in thinking should be conformable to the other's idea, as the name he uses in speaking is conformable in sound to his, from whom he learned it, his idea may be very wrong and inadequate: because in this case, making the other man's idea the pattern of his idea in thinking, as the other man's word or sound is the pattern of his in speaking, his idea is so far defective and inadequate, as it is distant from the archetype and pattern he refers it to, and intends to express and signify by the name he uses for it; which name he would have to be a sign of the other man's idea (to which, in its proper use, it is primarily annexed) and of his own, as agreeing to it: to which, if his own does not exactly correspond, it is faulty and inadequate.

§. 5. Therefore these complex ideas of modes, when they are referred by the mind, and intended to correspond to the ideas in the mind of some other intelligent being, expressed by the names we apply to them, they may be very deficient, wrong, and inadequate; because they agree not to that, which the mind designs to be their archetype and pattern: in which respect only, any idea of modes can be wrong, imperfect, or inadequate. And on this account our ideas of mixed modes are the most liable to be faulty of any other; but this refers more to proper speaking, than knowing right.

Ideas of substances, as referred to real essences not adequate.

§. 6. Thirdly, what ideas we have of substances, I have above showed. Now those ideas have in the mind a double reference: 1. Sometimes they are referred to a supposed real essence of each species of things. 2. Sometimes they are only designed to be pictures and representations in the mind of things that do exist by ideas of those qualities that are discoverable in them. In both which ways, these copies of those originals and archetypes are imperfect and inadequate.

First, it is usual for men to make the names of substances stand for things, as supposed to have certain real essences, whereby they are of this or that

species: and names standing for nothing but the ideas that are in men's minds, they must constantly refer their ideas to such real essences, as to their archetypes. That men (especially such as have been bred up in the learning taught in this part of the world) do suppose certain specific essences of substances, which each individual, in its several kinds, is made conformable to, and partakes of; is so far from needing proof, that it will be thought strange if any one should do otherwise. And thus they ordinarily apply the specific names they rank particular substances under to things, as distinguished by such specific real essences. Who is there almost, who would not take it amiss, if it should be doubted, whether he called himself a man, with any other meaning, than as having the real essence of a man? And yet if you demand what those real essences are, it is plain men are ignorant, and know them not. From whence it follows, that the ideas they have in their minds, being referred to real essences, as to archetypes which are unknown, must be so far from being adequate, that they cannot be supposed to be any representation of them at all. The complex ideas we have of substances are, as it has been shown, certain collections of simple ideas that have been observed or supposed constantly to exist together. But such a complex idea cannot be the real essence of any substance; for then the properties we discover in that body would depend on that complex idea, and be deducible from it, and their necessary connection with it be known; as all properties of a triangle depend on, and, as far as they are discoverable, are deducible from the complex idea of three lines, including a space. But it is plain, that in our complex ideas of substances are not contained such ideas, on which all the other qualities, that are to be found in them, do depend. The common idea men have of iron, is a body of a certain colour, weight and hardness; and a property that they look on as belonging to it, is malleableness. But yet this property has no necessary connection with that complex idea, or any part of it; and there is no more reason to think that malleableness depends on that colour, weight,

and hardness, than that colour, or that weight depends on its malleableness. And yet, though we know nothing of these real essences, there is nothing more ordinary, than that men should attribute the sorts of things to such essences. The particular parcel of matter, which makes the ring I have on my finger, is forwardly, by most men, supposed to have a real essence, whereby it is gold; and from whence those qualities flow, which I find in it, viz. its peculiar colour, weight, hardness, fusibility, fixedness, and change of colour upon a slight touch of mercury, &c. This essence, from which all these properties flow, when I inquire into it and search after it, I plainly perceive I cannot discover: the farthest I can go is only to presume, that it being nothing but body, its real essence, or internal constitution, on which these qualities depend, can be nothing but the figure, size, and connection of its solid parts; of neither of which having any distinct perception at all, can I have any idea of its essence, which is the cause that it has that particular shining yellowness, a greater weight than any thing I know of the same bulk, and a fitness to have its colour changed by the touch of quicksilver. If any one will say, that the real essence and internal constitution, on which these properties depend, is not the figure, size, and arrangement or connexion of its solid parts, but something else, called its particular form; I am farther from having any idea of its real essence, than I was before: for I have an idea of figure, size, and situation of solid parts in general, though I have none of the particular figure, size, or putting together of parts, whereby the qualities above-mentioned are produced; which qualities I find in that particular parcel of matter that is on my finger, and not in another parcel of matter, with which I cut the pen I write with. But when I am told, that something besides the figure, size, and posture of the solid parts of that body, is its essence, something called substantial form; of that, I confess, I have no idea at all, but only of the sound form, which is far enough from an idea of its real essence, or constitution. The like ignorance as I have of the real essence of

this particular substance, I have also of the real essence of all other natural ones: of which essences, I confess, I have no distinct ideas at all; and I am apt to suppose others, when they examine their own knowledge, will find in themselves, in this one point, the same sort of ignorance.

§. 7. Now then, when men apply to this particular parcel of matter on my finger, a general name already in use, and denominate it gold, do they not ordinarily, or are they not understood to give it that name as belonging to a particular species of bodies, having a real internal essence; by having of which essence, this particular substance comes to be of that species, and to be called by that name? If it be so, as it is plain it is, the name, by which things are marked, as having that essence, must be referred primarily to that essence; and consequently the idea to which that name is given, must be referred also to that essence, and be intended to represent it. Which essence, since they, who so use the names, know not, their ideas of substances must be all inadequate in that respect, as not containing in them that real essence which the mind intends they should.

Ideas of substances, as collections of their qualities, are all inadequate.

§. 8. Secondly, those who neglecting that useless supposition of unknown real essences, whereby they are distinguished, endeavour to copy the substances that exist in the world, by putting together the ideas of those sensible qualities which are found coexisting in them, though they come much nearer a likeness of them, than those who imagine they know not what real specific essences; yet they arrive not at perfectly adequate ideas of those substances they would thus copy into their minds; nor do those copies exactly and fully contain all that is to be found in their archetypes. Because those qualities, and powers of substances, whereof we make their complex ideas, are so many and various, that no man's complex idea contains them all. That our abstract ideas of substances do not contain in them all the simple ideas that are united in the things themselves, it is evident, in that

men do rarely put into their complex idea of any substance, all the simple ideas they do know to exist in it. Because endeavouring to make the signification of their names as clear, and as little cumbersome as they can, they make their specific ideas of the sorts of substance, for the most part, of a few of those simple ideas which are to be found in them: but these having no original precedency, or right to be put in, and make the specific idea more than others that are left out, it is plain that both these ways our ideas of substances are deficient and inadequate. The simple ideas, whereof we make our complex ones of substances, are all of them (bating only the figure and bulk of some sorts) powers, which being relations to other substances, we can never be sure that we know all the powers that are in any one body, till we have tried what changes it is fitted to give to, or receive from other substances, in their several ways of application: which being impossible to be tried upon any one body, much less upon all, it is impossible we should have adequate ideas of any substance, made up of a collection of all its properties.

§. 9. Whosoever first lighted on a parcel of that sort of substance we denote by the word gold, could not rationally take the bulk and figure he observed in that lump to depend on its real essence or internal constitution. Therefore those never went into his idea of that species of body; but its peculiar colour, perhaps, and weight, were the first he abstracted from it, to make the complex idea of that species. Which both are but powers; the one to affect our eyes after such a manner, and to produce in us that idea we call yellow; and the other to force upwards any other body of equal bulk; they being put into a pair of equal scales, one against another. Another perhaps added to these the ideas of fusibility and fixedness, two other passive powers, in relation to the operation of fire upon it; another, its ductility and solubility in aq. regia, two other powers relating to the operation of other bodies, in changing its outward figure, or separation of it into insensible parts. These, or part of these, put toge-

ther, usually make the complex idea in men's minds of that sort of body we call gold.

§. 10. But no one, who hath considered the properties of bodies in general, or this sort in particular, can doubt that this called gold has infinite other properties not contained in that complex idea. Some who have examined this species more accurately, could, I believe, enumerate ten times as many properties in gold, all of them as inseparable from its internal constitution, as its colour or weight: and it is probable, if any one knew all the properties that are by divers men known of this metal, there would be an hundred times as many ideas go to the complex idea of gold, as any one man yet has in his; and yet perhaps that not be the thousandth part of what is to be discovered in it. The changes which that one body is apt to receive, and make in other bodies, upon a due application, exceeding far not only what we know, but what we are apt to imagine. Which will not appear so much a paradox to any one, who will but consider how far men are yet from knowing all the properties of that one, no very compound figure, a triangle; though it be no small number that are already by mathematicians discovered of it.

Ideas of substances, as collections of their qualities, are all inadequate.

§. 11. So that all our complex ideas of substances are imperfect and inadequate. Which would be so also in mathematical figures, if we were to have our complex ideas of them, only by collecting their properties in reference to other figures. How uncertain and imperfect would our ideas be of an ellipsis, if we had no other idea of it, but some few of its properties? Whereas having in our plain idea the whole essence of that figure, we from thence discover those properties, and demonstratively see how they flow, and are inseparable from it.

Simple ideas, ἔκτυπα, and adequate.

§. 12. Thus the mind has three sorts of abstract ideas or nominal essences:

First, simple ideas, which are ἔκτυπα, or copies; but yet certainly adequate. Because being intended to express nothing but the power in things to

produce in the mind such a sensation, that sensation, when it is produced, cannot but be the effect of that power. So the paper I write on, having the power, in the light (I speak according to the common notion of light) to produce in men the sensation which I call white, it cannot but be the effect of such a power, in something without the mind; since the mind has not the power to produce any such idea in itself, and being meant for nothing else but the effect of such a power, that simple idea is real and adequate; the sensation of white, in my mind, being the effect of that power, which is in the paper to produce it, is perfectly adequate to that power; or else, that power would produce a different idea.

Ideas of substances are ἐκτυπα, inadequate.

§. 13. Secondly, the complex ideas of substances are ectypes, copies too; but not perfect ones, not adequate: which is very evident to the mind, in that it plainly perceives that whatever collection of simple ideas it makes of any substance that exists, it cannot be sure that it exactly answers all that are in that substance: since not having tried all the operations of all other substances upon it, and found all the alterations it would receive from, or cause in, other substances, it cannot have an exact adequate collection of all its active and passive capacities; and so not have an adequate complex idea of the powers of any substance existing, and its relations, which is that sort of complex idea of substances we have. And after all, if we would have, and actually had, in our complex idea, an exact collection of all the secondary qualities, or powers of any substance, we should not yet thereby have an idea of the essence of that thing. For since the powers or qualities that are observable by us, are not the real essence of that substance, but depend on it, and flow from it, any collection whatsoever of these qualities cannot be the real essence of that thing. Whereby it is plain, that our ideas of substances are not adequate; are not what the mind intends them to be. Besides, a man has no idea of substance in general, nor knows what substance is in itself.

Ideas of modes and relations are archetypes, and cannot but be adequate.

§. 14. Thirdly, complex ideas of modes and relations are originals, and archetypes, are not copies, nor made after the pattern of any real existence, to which the mind intends them to be conformable, and exactly to answer. These being such collections of simple ideas, that the mind itself puts together, and such collections, that each of them contains in it precisely all that the mind intends that it should, they are archetypes and essences of modes that may exist; and so are designed only for, and belong only to, such modes as, when they do exist, have an exact conformity with those complex ideas. The ideas therefore of modes and relations cannot but be adequate.

CHAP. XXXII.

Of true and false Ideas.

Truth and falsehood properly belong to propositions.

§. 1. THOUGH truth and falsehood belong, in propriety of speech, only to propositions; yet ideas are oftentimes termed true or false (as what words are there, that are not used with great latitude, and with some deviation from their strict and proper significations?) Though, I think, that when ideas themselves are termed true or false, there is still some secret or tacit proposition, which is the foundation of that denomination; as we shall see, if we examine the particular occasions wherein they come to be called true or false. In all which, we shall find some kind of affirmation or negation, which is the reason of that denomination. For our ideas, being nothing but bare appearances or perceptions in our minds, cannot properly and simply in themselves be said to be true or false, no more than a single name of any thing can be said to be true or false.

§. 2. Indeed both ideas and words may be said to be true in a metaphysical sense of the word truth, as all other things, that any way exist, are said to be true; i. e. really to be such as they exist. Though in things called true, even in that sense, there is perhaps a secret reference to our ideas, looked upon as the standards of that truth, which amounts to a mental proposition, though it be usually not taken notice of. Metaphysical truth contains a tacit proposition.

§. 3. But it is not in that metaphysical sense of truth which we inquire here, when we examine whether our ideas are capable of being true or false; but in the more ordinary acceptation of those words: and so I say, that the ideas in our minds being only so many perceptions, or appearances there, none of them are false: the idea of a centaur having no more falsehood in it, when it appears in our minds, than the name centaur has falsehood in it, when it is pronounced by our mouths, or written on paper. For truth or falsehood lying always in some affirmation, or negation, mental or verbal, our ideas are not capable, any of them, of being false, till the mind passes some judgment on them; that is, affirms or denies something of them. No idea, as an appearance in the mind, true or false.

§. 4. Whenever the mind refers any of its ideas to any thing extraneous to them, they are then capable to be called true or false. Because the mind in such a reference makes a tacit supposition of their conformity to that thing: which supposition, as it happens to be true or false, so the ideas themselves come to be denominated. The most usual cases wherein this happens, are these following: Ideas referred to any thing may be true or false.

§. 5. First, when the mind supposes any idea it has conformable to that in other men's minds, called by the same common name; v. g. when the mind intends or judges its ideas of justice, temperance, religion, to be the same with what other men give those names to. Other men's ideas, real existence, and supposed real essences, are what men usually refer their ideas to.

Secondly, when the mind supposes any idea it has in itself to be conformable to some real existence. Thus the two ideas, of a man and a centaur, supposed to be the ideas of real substances, are the one true, and the other false; the one having a conformity to what has really existed, the other not.

Thirdly, when the mind refers any of its ideas to that real constitution and essence of any thing, whereon all its properties depend: and thus the greatest part, if not all our ideas of substances, are false.

The cause of such references.

§. 6. These suppositions the mind is very apt tacitly to make concerning its own ideas. But yet, if we will examine it, we shall find it is chiefly, if not only, concerning its abstract complex ideas. For the natural tendency of the mind being towards knowledge; and finding that if it should proceed by and dwell upon only particular things, its progress would be very slow, and its work endless; therefore to shorten its way to knowledge, and make each perception more comprehensive; the first thing it does, as the foundation of the easier enlarging its knowledge, either by contemplation of the things themselves that it would know, or conference with others about them, is to bind them into bundles, and rank them so into sorts, that what knowledge it gets of any of them, it may thereby with assurance extend to all of that sort; and so advance by larger steps in that, which is its great business, knowledge. This, as I have elsewhere shown, is the reason why we collect things under comprehensive ideas, with names annexed to them, into genera and species, i. e. into kinds and sorts.

§. 7. If therefore we will warily attend to the motions of the mind, and observe what course it usually takes in its way to knowledge; we shall, I think, find that the mind having got an idea, which it thinks it may have use of, either in contemplation or discourse, the first thing it does is to abstract it, and then get a name to it; and so lay it up in its store-house, the memory, as containing the essence of a sort of things, of which that name is always to be the mark. Hence

it is that we may often observe, that when any one sees a new thing of a kind that he knows not, he presently asks what it is, meaning by that inquiry nothing but the name. As if the name carried with it the knowledge of the species, or the essence of it; whereof it is indeed used as the mark, and is generally supposed annexed to it.

Cause of such references.

§. 8. But this abstract idea being something in the mind between the thing that exists, and the name that is given to it; it is in our ideas, that both the rightness of our knowledge, and the propriety or intelligibleness of our speaking, consists. And hence it is, that men are so forward to suppose, that the abstract ideas they have in their minds are such as agree to the things existing without them, to which they are referred; and are the same also, to which the names they give them do by the use and propriety of that language belong. For without this double conformity of their ideas, they find they should both think amiss of things in themselves, and talk of them unintelligibly to others.

Simple ideas may be false in reference to others of the same name, but are least liable to be so.

§. 9. First then, I say, that when the truth of our ideas is judged of, by the conformity they have to the ideas which other men have, and commonly signify by the same name, they may be any of them false. But yet simple ideas are least of all liable to be so mistaken; because a man by his senses, and every day's observation, may easily satisfy himself what the simple ideas are, which their several names that are in common use stand for: they being but few in number, and such as if he doubts or mistakes in, he may easily rectify by the objects they are to be found in. Therefore it is seldom, that any one mistakes in his names of simple ideas; or applies the name red to the idea green; or the name sweet to the idea bitter: much less are men apt to confound the names of ideas belonging to different senses; and call a colour by the name of a taste, &c. whereby it is evident, that the simple ideas they call by any name, are commonly

the same that others have and mean when they use the same names.

Ideas of mixed modes most liable to be false in this sense.

§. 10. Complex ideas are much more liable to be false in this respect: and the complex ideas of mixed modes, much more than those of substances: because in substances (especially those which the common and unborrowed names of any language are applied to) some remarkable sensible qualities, serving ordinarily to distinguish one sort from another, easily preserve those, who take any care in the use of their words, from applying them to sorts of substances, to which they do not at all belong. But in mixed modes we are much more uncertain; it being not so easy to determine of several actions, whether they are to be called justice or cruelty, liberality or prodigality. And so in referring our ideas to those of other men, called by the same names, ours may be false; and the idea in our minds, which we express by the word justice, may perhaps be that which ought to have another name.

Or at least to be thought false.

§. 11. But whether or no our ideas of mixed modes are more liable than any sort to be different from those of other men, which are marked by the same names; this at least is certain, that this sort of falsehood is much more familiarly attributed to our ideas of mixed modes, than to any other. When a man is thought to have a false idea of justice, or gratitude, or glory, it is for no other reason, but that his agrees not with the ideas which each of those names are the signs of in other men.

And why.

§. 12. The reason whereof seems to me to be this, that the abstract ideas of mixed modes, being men's voluntary combinations of such a precise collection of simple ideas; and so the essence of each species being made by men alone, whereof we have no other sensible standard existing any where, but the name itself, or the definition of that name: we have nothing else to refer these our ideas of mixed modes to, as a standard to which we would conform them, but the ideas of those who are thought to use those names in their most proper significations; and so as our ideas conform or differ from them, they pass for

true or false. And thus much concerning the truth and falsehood of our ideas, in reference to their names.

As referred to real existences, none of our ideas can be false, but those of substances.

§. 13. Secondly, as to the truth and falsehood of our ideas, in reference to the real existence of things; when that is made the standard of their truth, none of them can be termed false, but only our complex ideas of substances.

First, simple ideas in this sense not false, and why.

§. 14. First, our simple ideas being barely such perceptions as God has fitted us to receive, and given power to external objects to produce in us by established laws and ways, suitable to his wisdom and goodness, though incomprehensible to us, their truth consists in nothing else but in such appearances as are produced in us, and must be suitable to those powers he has placed in external objects, or else they could not be produced in us: and thus answering those powers, they are what they should be, true ideas. Nor do they become liable to any imputation of falsehood, if the mind (as in most men I believe it does) judges these ideas to be in the things themselves. For God, in his wisdom, having set them as marks of distinction in things, whereby we may be able to discern one thing from another, and so choose any of them for our uses, as we have occasion; it alters not the nature of our simple idea, whether we think that the idea of blue be in the violet itself, or in our mind only; and only the power of producing it by the texture of its parts, reflecting the particles of light after a certain manner, to be in the violet itself. For that texture in the object, by a regular and constant operation, producing the same idea of blue in us, it serves us to distinguish, by our eyes, that from any other thing, whether that distinguishing mark, as it is really in the violet, be only a peculiar texture of parts, or else that very colour, the idea whereof (which is in us) is the exact resemblance. And it is equally from that appearance to be denominated blue, whether it be that real colour, or only a peculiar texture in it, that causes in us that idea: since the name blue notes properly nothing but that mark of distinction that is in a violet, discernible only by our eyes, whatever it consists in:

that being beyond our capacities distinctly to know, and perhaps would be of less use to us, if we had faculties to discern.

Though one man's idea of blue should be different from another's.

§. 15. Neither would it carry any imputation of falsehood to our simple ideas, if by the different structure of our organs it were so ordered, that the same object should produce in several men's minds different ideas at the same time; v. g. if the idea that a violet produced in one man's mind by his eyes were the same that a marygold produced in another man's, and vice versa. For since this could never be known, because one man's mind could not pass into another man's body, to perceive what appearances were produced by those organs; neither the ideas hereby, nor the names would be at all confounded, or any falsehood be in either. For all things that had the texture of a violet, producing constantly the idea that he called blue; and those which had the texture of a marygold, producing constantly the idea which he as constantly called yellow; whatever those appearances were in his mind, he would be able as regularly to distinguish things for his use by those appearances, and understand and signify those distinctions marked by the names blue and yellow, as if the appearances, or ideas in his mind, received from those two flowers, were exactly the same with the ideas in other men's minds. I am nevertheless very apt to think, that the sensible ideas produced by any object in different men's minds, are most commonly very near and undiscernibly alike. For which opinion, I think, there might be many reasons offered: but that being besides my present business, I shall not trouble my reader with them: but only mind him, that the contrary supposition, if it could be proved, is of little use, either for the improvement of our knowledge, or conveniency of life; and so we need not trouble ourselves to examine it.

First, simple ideas in this sense not false, and why.

§. 16. From what has been said concerning our simple ideas, I think it evident, that our simple ideas can none of them be false in respect of things existing with-

out us. For the truth of these appearances, or perceptions in our minds, consisting, as has been said, only in their being answerable to the powers in external objects to produce by our senses such appearances in us; and each of them being in the mind, such as it is, suitable to the power that produced it, and which alone it represents; it cannot upon that account, or as referred to such a pattern, be false. Blue and yellow, bitter or sweet, can never be false ideas: these perceptions in the mind are just such as they are there, answering the powers appointed by God to produce them; and so are truly what they are, and are intended to be. Indeed the names may be misapplied: but that in this respect makes no falsehood in the ideas; as if a man ignorant in the English tongue should call purple scarlet.

Secondly, modes not false.

§. 17. Secondly, neither can our complex ideas of modes, in reference to the essence of any thing really existing, be false. Because whatever complex idea I have of any mode, it hath no reference to any pattern existing, and made by nature: it is not supposed to contain in it any other ideas than what it hath; nor to represent any thing but such a complication of ideas as it does. Thus when I have the idea of such an action of a man, who forbears to afford himself such meat, drink, and clothing, and other conveniencies of life, as his riches and estate will be sufficient to supply, and his station requires, I have no false idea; but such an one as represents an action, either as I find or imagine it; and so is capable of neither truth or falsehood. But when I give the name frugality or virtue to this action, then it may be called a false idea, if thereby it be supposed to agree with that idea, to which, in propriety of speech, the name of frugality doth belong; or to be conformable to that law, which is the standard of virtue and vice.

Thirdly, ideas of substances when false.

§. 18. Thirdly, our complex ideas of substances, being all referred to patterns in things themselves, may be false. That they are all false, when looked upon as the representations of the unknown essences of things, is so

evident, that there needs nothing to be said of it. I shall therefore pass over that chimerical supposition, and consider them as collections of simple ideas in the mind taken from combinations of simple ideas existing together constantly in things, of which patterns they are the supposed copies: and in this reference of them to the existence of things, they are false ideas. 1. When they put together simple ideas, which in the real existence of things have no union; as when to the shape and size that exist together in a horse is joined, in the same complex idea, the power of barking like a dog: which three ideas, however put together into one in the mind, were never united in nature; and this therefore may be called a false idea of an horse. 2. Ideas of substances are, in this respect, also false, when from any collection of simple ideas that do always exist together, there is separated, by a direct negation, any other simple idea which is constantly joined with them. Thus, if to extension, solidity, fusibility, the peculiar weightiness, and yellow colour of gold, any one join in his thoughts the negation of a greater degree of fixedness than is in lead or copper, he may be said to have a false complex idea, as well as when he joins to those other simple ones the idea of a perfect absolute fixedness. For either way, the complex idea of gold being made up of such simple ones as have no union in nature, may be termed false. But if we leave out of this his complex idea, that of fixedness quite, without either actually joining to, or separating of it from the rest in his mind, it is, I think, to be looked on as an inadequate and imperfect idea, rather than a false one; since though it contains not all the simple ideas that are united in nature, yet it puts none together but what do really exist together.

Truth or falsehood always supposes affirmation or negation.

§. 19. Though in compliance with the ordinary way of speaking I have showed in what sense, and upon what ground our ideas may be sometimes called true or false; yet if we will look a little nearer into the matter, in all cases where any idea is called true or false, it is from some judgment that the mind

makes, or is supposed to make, that is true or false. For truth or falsehood, being never without some affirmation or negation, express or tacit, it is not to be found but where signs are joined and separated according to the agreement or disagreement of the things they stand for. The signs we chiefly use are either ideas or words, wherewith we make either mental or verbal propositions. Truth lies in so joining or separating these representatives, as the things they stand for do in themselves agree or disagree; and falsehood in the contrary, as shall be more fully shown hereafter.

Ideas in themselves neither true nor false.

§. 20. Any idea then which we have in our minds, whether conformable or not to the existence of things, or to any idea in the minds of other men, cannot properly for this alone be called false. For these representations, if they have nothing in them but what is really existing in things without, cannot be thought false, being exact representations of something: nor yet, if they have any thing in them differing from the reality of things, can they properly be said to be false representations, or ideas of things they do not represent. But the mistake and falsehood is,

But are false, 1. When judged agreeable to another man's idea, without being so.

§. 21. First, when the mind having any idea, it judges and concludes it the same that is in other men's minds, signified by the same name; or that it is conformable to the ordinary received signification or definition of that word, when indeed it is not: which is the most usual mistake in mixed modes, though other ideas also are liable to it.

2. When judged to agree to real existence, when they do not.

§. 22. Secondly, when it having a complex idea made up of such a collection of simple ones as nature never puts together, it judges it to agree to a species of creatures really existing; as when it joins the weight of tin to the colour, fusibility, and fixedness of gold.

3. When judged adequate, without being so.

§. 23. Thirdly, when in its complex idea it has united a certain number of simple ideas that do really exist together in

some sort of creatures, but has also left out others as much inseparable, it judges this to be a perfect complete idea of a sort of things which really it is not; v. g. having joined the ideas of substance, yellow, malleable, most heavy, and fusible, it takes that complex idea to be the complete idea of gold, when yet its peculiar fixedness and solubility in aqua regia are as inseparable from those other ideas or qualities of that body, as they are from one another.

4. When judged to represent the real essence.

§. 24. Fourthly, the mistake is yet greater, when I judge, that this complex idea contains in it the real essence of any body existing, when at least it contains but some few of those properties which flow from its real essence and constitution. I say, only some few of those properties; for those properties consisting mostly in the active and passive powers it has, in reference to other things, all that are vulgarly known of any one body of which the complex idea of that kind of things is usually made, are but a very few, in comparison of what a man, that has several ways tried and examined it, knows of that one sort of things: and all that the most expert man knows are but a few, in comparison of what are really in that body, and depend on its internal or essential constitution. The essence of a triangle lies in a very little compass, consists in a very few ideas: three lines including a space make up that essence: but the properties that flow from this essence are more than can be easily known or enumerated. So I imagine it is in substances, their real essences lie in a little compass, though the properties flowing from that internal constitution are endless.

Ideas, when false.

§. 25. To conclude, a man having no notion of any thing without him, but by the idea he has of it in his mind (which idea he has a power to call by what name he pleases) he may indeed make an idea neither answering the reason of things, nor agreeing to the idea commonly signified by other people's words; but cannot make a wrong or false idea of a thing, which is no otherwise known to him but by the idea he has of it: v. g. when

I frame an idea of the legs, arms, and body of a man, and join to this a horse's head and neck, I do not make a false idea of any thing; because it represents nothing without me. But when I call it a man or Tartar, and imagine it to represent some real being without me, or to be the same idea that others call by the same name; in either of these cases I may err. And upon this account it is, that it comes to be termed a false idea; though indeed the falsehood lies not in the idea, but in that tacit mental proposition, wherein a conformity and resemblance is attributed to it, which it has not. But yet, if having framed such an idea in my mind, without thinking either that existence, or the name man or Tartar, belongs to it, I will call it man or Tartar, I may be justly thought fantastical in the naming, but not erroneous in my judgment; nor the idea any way false.

More properly to be called right or wrong.

§. 26. Upon the whole matter, I think, that our ideas, as they are considered by the mind, either in reference to the proper signification of their names, or in reference to the reality of things, may very fitly be called right or wrong ideas, according as they agree or disagree to those patterns to which they are referred. But if any one had rather call them true or false, it is fit he use a liberty, which every one has, to call things by those names he thinks best; though, in propriety of speech, truth or falsehood will, I think, scarce agree to them, but as they, some way or other, virtually contain in them some mental proposition. The ideas that are in a man's mind, simply considered, cannot be wrong, unless complex ones, wherein inconsistent parts are jumbled together. All other ideas are in themselves right, and the knowledge about them right and true knowledge: but when we come to refer them to any thing, as to their patterns and archetypes, then they are capable of being wrong, as far as they disagree with such archetypes.

CHAP. XXXIII.

Of the Association of Ideas.

Something unreasonable in most men.

§. 1. THERE is scarce any one that does not observe something that seems odd to him, and is in itself really extravagant in the opinions, reasonings, and actions of other men. The least flaw of this kind, if at all different from his own, every one is quick-sighted enough to espy in another, and will by the authority of reason forwardly condemn, though he be guilty of much greater unreasonableness in his own tenets and conduct, which he never perceives, and will very hardly, if at all, be convinced of.

Not wholly from self-love.

§. 2. This proceeds not wholly from self-love, though that has often a great hand in it. Men of fair minds, and not given up to the over-weening of self-flattery, are frequently guilty of it; and in many cases one with amazement hears the arguings, and is astonished at the obstinacy of a worthy man, who yields not to the evidence of reason, though laid before him as clear as day-light.

Not from education.

§. 3. This sort of unreasonableness is usually imputed to education and prejudice, and for the most part truly enough, though that reaches not the bottom of the disease, nor shows distinctly enough whence it rises, or wherein it lies. Education is often rightly assigned for the cause, and prejudice is a good general name for the thing itself: but yet, I think, he ought to look a little farther, who would trace this sort of madness to the root it springs from, and so explain it, as to show whence this flaw has its original in very sober and rational minds, and wherein it consists.

A degree of madness.

§. 4. I shall be pardoned for calling it by so harsh a name as madness, when it is considered, that opposition to reason de-

serves that name, and is really madness; and there is scarce a man so free from it, but that if he should always, on all occasions, argue or do as in some cases he constantly does, would not be thought fitter for Bedlam than civil conversation. I do not here mean when he is under the power of an unruly passion, but in the steady calm course of his life. That which will yet more apologize for this harsh name, and ungrateful imputation on the greatest part of mankind, is, that inquiring a little by the by into the nature of madness, b. ii. c. xi. §. 13. I found it to spring from the very same root, and to depend on the very same cause we are here speaking of. This consideration of the thing itself, at a time when I thought not the least on the subject which I am now treating of, suggested it to me. And if this be a weakness to which all men are so liable; if this be a taint which so universally infects mankind; the greater care should be taken to lay it open under its due name, thereby to excite the greater care in its prevention and cure.

From a wrong connexion of ideas.

§. 5. Some of our ideas have a natural correspondence and connexion one with another: it is the office and excellency of our reason to trace these, and hold them together in that union and correspondence which is founded in their peculiar beings. Besides this, there is another connexion of ideas wholly owing to chance or custom: ideas, that in themselves are not all of kin, come to be so united in some men's minds, that it is very hard to separate them; they always keep in company, and the one no sooner at any time comes into the understanding, but its associate appears with it; and if they are more than two, which are thus united, the whole gang, always inseparable, show themselves together.

This connexion how made.

§. 6. This strong combination of ideas, not allied by nature, the mind makes in itself either voluntarily or by chance; and hence it comes in different men to be very different, according to their different inclinations, education, interests, &c. Custom settles habits of thinking in the

understanding, as well as of determining in the will, and of motions in the body; all which seems to be but trains of motion in the animal spirits, which once set a-going, continue in the same steps they have been used to: which, by often treading, are worn into a smooth path, and the motion in it becomes easy, and as it were natural. As far as we can comprehend thinking, thus ideas seem to be produced in our minds; or if they are not, this may serve to explain their following one another in an habitual train, when once they are put into their track, as well as it does to explain such motions of the body. A musician used to any tune will find, that let it but once begin in his head, the ideas of the several notes of it will follow one another orderly in his understanding, without any care or attention, as regularly as his fingers move orderly over the keys of the organ to play out the tune he has begun, though his unattentive thoughts be elsewhere a wandering. Whether the natural cause of these ideas, as well as of that regular dancing of his fingers, be the motion of his animal spirits, I will not determine, how probable soever, by this instance, it appears to be so: but this may help us a little to conceive of intellectual habits, and of the tying together of ideas.

Some antipathies an effect of it.

§. 7. That there are such associations of them made by custom in the minds of most men I think nobody will question, who has well considered himself or others; and to this, perhaps, might be justly attributed most of the sympathies and antipathies observable in men, which work as strongly, and produce as regular effects as if they were natural; and are therefore called so, though they at first had no other original but the accidental connexion of two ideas, which either the strength of the first impression, or future indulgence so united, that they always afterwards kept company together in that man's mind, as if they were but one idea. I say most of the antipathies, I do not say all, for some of them are truly natural, depend upon our original constitution, and are born with us; but a great part of those which are counted natural, would have been known to

be from unheeded, though, perhaps, early impressions, or wanton fancies at first, which would have been acknowledged the original of them, if they had been warily observed. A grown person surfeiting with honey, no sooner hears the name of it, but his fancy immediately carries sickness and qualms to his stomach, and he cannot bear the very idea of it; other ideas of dislike, and sickness, and vomiting, presently accompany it, and he is disturbed, but he knows from whence to date this weakness, and can tell how he got this indisposition. Had this happened to him by an overdose of honey, when a child, all the same effects would have followed, but the cause would have been mistaken, and the antipathy counted natural.

§. 8. I mention this not out of any great necessity there is, in this present argument, to distinguish nicely between natural and acquired antipathies; but I take notice of it for another purpose, viz. that those who have children, or the charge of their education, would think it worth their while diligently to watch, and carefully to prevent the undue connexion of ideas in the minds of young people. This is the time most susceptible of lasting impressions: and though those relating to the health of the body are by discreet people minded and fenced against, yet I am apt to doubt, that those which relate more peculiarly to the mind, and terminate in the understanding or passions, have been much less heeded than the thing deserves: nay, those relating purely to the understanding have, as I suspect, been by most men wholly overlooked.

A great cause of errours.

§. 9. This wrong connexion in our minds of ideas in themselves loose and independent of one another, has such an influence, and is of so great force to set us awry in our actions, as well moral as natural, passions, reasonings and notions themselves, that perhaps there is not any one thing that deserves more to be looked after.

Instances.

§. 10. The ideas of goblins and sprights have really no more to do with darkness than light; yet let but a foolish maid inculcate these often on the mind of a child, and raise them there to-

gether, possibly he shall never be able to separate them again so long as he lives: but darkness shall ever afterwards bring with it those frightful ideas, and they shall be so joined, that he can no more bear the one than the other.

§. 11. A man receives a sensible injury from another, thinks on the man and that action over and over; and by ruminating on them strongly, or much in his mind, so cements those two ideas together, that he makes them almost one: never thinks on the man, but the pain and displeasure he suffered comes into his mind with it, so that he scarce distinguishes them, but has as much an aversion for the one as the other. Thus hatreds are often begotten from slight and innocent occasions, and quarrels propagated and continued in the world.

§. 12. A man has suffered pain or sickness in any place; he saw his friend die in such a room; though these have in nature nothing to do one with another, yet when the idea of the place occurs to his mind, it brings (the impression being once made) that of the pain and displeasure with it; he confounds them in his mind, and can as little bear the one as the other.

Why time cures some disorders in the mind, which reason cannot.

§. 13. When this combination is settled, and while it lasts, it is not in the power of reason to help us, and relieve us from the effects of it. Ideas in our minds, when they are there, will operate according to their natures and circumstances; and here we see the cause why time cures certain affections, which reason, though in the right, and allowed to be so, has not power over, nor is able against them to prevail with those who are apt to hearken to it in other cases. The death of a child, that was the daily delight of his mother's eyes, and joy of her soul, rends from her heart the whole comfort of her life, and gives her all the torment imaginable: use the consolations of reason in this case, and you were as good preach ease to one on the rack, and hope to allay, by rational discourses, the pain of his joints tearing asunder. Till time has by disuse separated the sense of that enjoy-

ment, and its loss, from the idea of the child returning to her memory, all representations, though ever so reasonable, are in vain; and therefore some in whom the union between these ideas is never dissolved, spend their lives in mourning, and carry an incurable sorrow to their graves.

Farther instances of the effect of the association of ideas.

§. 14. A friend of mine knew one perfectly cured of madness by a very harsh and offensive operation. The gentleman, who was thus recovered, with great sense of gratitude and acknowledgment, owned the cure all his life after, as the greatest obligation he could have received; but whatever gratitude and reason suggested to him, he could never bear the sight of the operator: that image brought back with it the idea of that agony which he suffered from his hands, which was too mighty and intolerable for him to endure.

§. 15. Many children imputing the pain they endured at school to their books they were corrected for, so join those ideas together, that a book becomes their aversion, and they are never reconciled to the study and use of them all their lives after: and thus reading becomes a torment to them, which otherwise possibly they might have made the great pleasure of their lives. There are rooms convenient enough, that some men cannot study in, and fashions of vessels, which though ever so clean and commodious, they cannot drink out of, and that by reason of some accidental ideas which are annexed to them, and make them offensive: and who is there that hath not observed some man to flag at the appearance, or in the company of some certain person not otherwise superior to him, but because having once on some occasion got the ascendant, the idea of authority and distance goes along with that of the person, and he that has been thus subjected, is not able to separate them?

§. 16. Instances of this kind are so plentiful everywhere, that if I add one more, it is only for the pleasant oddness of it. It is of a young gentleman, who having learnt to dance, and that to great perfection, there happened to stand an old trunk in the room

where he learnt. The idea of this remarkable piece of household stuff had so mixed itself with the turns and steps of all his dances, that though in that chamber he could dance excellently well, yet it was only whilst that trunk was there; nor could he perform well in any other place, unless that or some such other trunk had its due position in the room. If this story shall be suspected to be dressed up with some comical circumstances a little beyond precise nature; I answer for myself that I had it some years since from a very sober and worthy man, upon his own knowledge, as I report it: and I dare say, there are very few inquisitive persons, who read this, who have not met with accounts, if not examples of this nature, that may parallel, or at least justify this.

Its influence on intellectual habits.

§. 17. Intellectual habits and defects this way contracted, are not less frequent and powerful, though less observed. Let the ideas of being and matter be strongly joined either by education or much thought, whilst these are still combined in the mind, what notions, what reasonings will there be about separate spirits? Let custom from the very childhood have joined figure and shape to the idea of God, and what absurdities will that mind be liable to about the Deity?

Let the idea of infallibility be inseparably joined to any person, and these two constantly together possess the mind; and then one body, in two places at once, shall unexamined be swallowed for a certain truth by an implicit faith, wherever that imagined infallible person dictates and demands assent without inquiry.

Observable in different sects.

§. 18. Some such wrong and unnatural combinations of ideas will be found to establish the irreconcilable opposition between different sects of philosophy and religion; for we cannot imagine every one of their followers to impose wilfully on himself, and knowingly refuse truth offered by plain reason. Interest, though it does a great deal in the case, yet cannot be thought to work whole societies of men to so universal a perverseness, as that every one of them to a man should knowingly main-

tain falsehood: some at least must be allowed to do what all pretend to, i. e. to pursue truth sincerely; and therefore there must be something that blinds their understandings, and makes them not see the falsehood of what they embrace for real truth. That which thus captivates their reasons, and leads men of sincerity blindfold from common sense, will, when examined, be found to be what we are speaking of: some independent ideas, of no alliance to one another, are by education, custom, and the constant din of their party, so coupled in their minds, that they always appear there together; and they can no more separate them in their thoughts, than if there were but one idea, and they operate as if they were so. This gives sense to jargon, demonstration to absurdities, and consistency to nonsense, and is the foundation of the greatest, I had almost said of all the errours in the world; or if it does not reach so far, it is at least the most dangerous one, since so far as it obtains, it hinders men from seeing and examining. When two things in themselves disjoined, appear to the sight constantly united; if the eye sees these things riveted, which are loose, where will you begin to rectify the mistakes that follow in two ideas, that they have been accustomed so to join in their minds, as to substitute one for the other, and, as I am apt to think, often without perceiving it themselves? This, whilst they are under the deceit of it, makes them incapable of conviction, and they applaud themselves as zealous champions for truth, when indeed they are contending for errour; and the confusion of two different ideas, which a customary connexion of them in their minds hath to them made in effect but one, fills their heads with false views, and their reasonings with false consequences.

Conclusion.

§. 19. Having thus given an account of the original, sorts, and extent of our ideas, with several other considerations, about these (I know not whether I may say) instruments or materials of our knowledge; the method I at first proposed to myself would now require, that I should immediately proceed to show what use the understanding makes of them, and what knowledge we have by them. This was that

which, in the first general view I had of this subject, was all that I thought I should have to do: but, upon a nearer approach, I find that there is so close a connexion between ideas and words; and our abstract ideas, and general words, have so constant a relation one to another, that it is impossible to speak clearly and distinctly of our knowledge, which all consists in propositions, without considering, first the nature, use, and signification of language; which therefore must be the business of the next book.

BOOK III.

CHAP. I.

Of Words or Language in general.

Man fitted to form articulate sounds.

§. 1. GOD having designed man for a sociable creature, made him not only with an inclination, and under a necessity to have fellowship with those of his own kind; but furnished him also with language, which was to be the great instrument and common tie of society. Man therefore had by nature his organs so fashioned, as to be fit to frame articulate sounds, which we call words. But this was not enough to produce language; for parrots, and several other birds, will be taught to make articulate sounds distinct enough, which yet, by no means, are capable of language.

To make them signs of ideas.

§. 2. Besides articulate sounds therefore, it was farther necessary, that he should be able to use these sounds as signs of internal conceptions; and to make them stand as marks for the ideas within his own mind, whereby they might be made known to others, and the thoughts of men's minds be conveyed from one to another.

To make general signs.

§. 3. But neither was this sufficient to make words so useful as they ought to be.

It is not enough for the perfection of language, that sounds can be made signs of ideas, unless those signs can be so made use of as to comprehend several particular things: for the multiplication of words would have perplexed their use, had every particular thing need of a distinct name to be signified by. To remedy this inconvenience, language had yet a farther improvement in the use of general terms, whereby one word was made to mark a multitude of particular existences: which advantageous use of sounds was obtained only by the difference of the ideas they were made signs of: those names becoming general, which are made to stand for general ideas, and those remaining particular, where the ideas they are used for are particular.

§. 4. Besides these names which stand for ideas, there be other words which men make use of, not to signify any idea, but the want or absence of some ideas simple or complex, or all ideas together; such as are nihil in Latin, and in English, ignorance and barrenness. All which negative or privative words cannot be said properly to belong to, or signify no ideas; for then they would be perfectly insignificant sounds; but they relate to positive ideas, and signify their absence.

Words ultimately derived from such as signify sensible ideas.

§. 5. It may also lead us a little towards the original of all our notions and knowledge, if we remark how great a dependence our words have on common sensible ideas: and how those, which are made use of to stand for actions and notions quite removed from sense, have their rise from thence, and from obvious sensible ideas are transferred to more abstruse significations; and made to stand for ideas that come not under the cognizance of our senses: v. g. to imagine, apprehend, comprehend, adhere, conceive, instil, disgust, disturbance, tranquillity, &c. are all words taken from the operations of sensible things, and applied to certain modes of thinking. Spirit, in its primary signification, is breath: angel a messenger: and I doubt not, but if we could trace them to their sources, we should find, in all languages, the names, which stand for things that fall not under our senses, to have

had their first rise from sensible ideas. By which we may give some kind of guess what kind of notions they were, and whence derived, which filled their minds who were the first beginners of languages: and how nature, even in the naming of things, unawares suggested to men the originals and principles of all their knowledge: whilst, to give names that might make known to others any operations they felt in themselves, or any other ideas that came not under their senses, they were fain to borrow words from ordinary known ideas of sensation, by that means to make others the more easily to conceive those operations they experimented in themselves which made no outward sensible appearances: and then when they had got known and agreed names, to signify those internal operations of their own minds, they were sufficiently furnished to make known by words all their other ideas; since they could consist of nothing, but either of outward sensible perceptions, or of the inward operations of their minds about them: we having, as has been proved, no ideas at all, but what originally come either from sensible objects without, or what we feel within ourselves, from the inward workings of our own spirits, of which we are conscious to ourselves within.

Distribution. §. 6. But to understand better the use and force of language, as subservient to instruction and knowledge, it will be convenient to consider,

First, To what it is that names, in the use of language, are immediately applied.

Secondly, Since all (except proper) names are general, and so stand not particularly for this or that single thing, but for sorts and ranks of things; it will be necessary to consider, in the next place, what the sorts and kinds, or, if you rather like the Latin names, what the species and genera of things are; wherein they consist, and how they come to be made. These being (as they ought) well looked into, we shall the better come to find the right use of words, the natural advantages and defects of language, and the remedies that ought to be used, to avoid the inconveniencies of

obscurity or uncertainty in the signification of words, without which it is impossible to discourse with any clearness, or order, concerning knowledge: which being conversant about propositions, and those most commonly universal ones, has greater connexion with words than perhaps is suspected.

These considerations therefore shall be the matter of the following chapters.

CHAP. II.

Of the Signification of Words.

Words are sensible signs necessary for communication.

§. 1. MAN, though he has great variety of thoughts, and such, from which others, as well as himself, might receive profit and delight; yet they are all within his own breast, invisible and hidden from others, nor can of themselves be made appear. The comfort and advantage of society not being to be had without communication of thoughts, it was necessary that man should find out some external sensible signs, whereof those invisible ideas, which his thoughts are made up for, might be made known to others. For this purpose nothing was so fit, either for plenty or quickness, as those articulate sounds, which with so much ease and variety he found himself able to make. Thus we may conceive how words which were by nature so well adapted to that purpose, come to be made use of by men, as the signs of their ideas; not by any natural connexion that there is between particular articulate sounds and certain ideas, for then there would be but one language amongst all men; but by a voluntary imposition, whereby such a word is made arbitrarily the mark of such an idea. The use then of words is to be sensible marks of ideas; and the ideas they stand for are their proper and immediate signification.

Words are the sensible signs of his ideas who uses them.

§. 2. The use men have of these marks being either to record their own thoughts for the assistance of their own memory, or as it were to bring out their ideas, and lay them before the view of others; words in their primary or immediate signification, stand for nothing but the ideas in the mind of him that uses them, how imperfectly soever or carelessly those ideas are collected from the things which they are supposed to represent. When a man speaks to another, it is that he may be understood; and the end of speech is, that those sounds, as marks, may make known his ideas to the hearer. That then which words are the marks of are the ideas of the speaker: nor can any one apply them as marks, immediately to any thing else, but the ideas that he himself hath. For this would be to make them signs of his own conceptions, and yet apply them to other ideas; which would be to make them signs, and not signs, of his ideas at the same time; and so in effect to have no signification at all. Words being voluntary signs, they cannot be voluntary signs imposed by him on things he knows not. That would be to make them signs of nothing, sounds without signification. A man cannot make his words the signs either of qualities in things, or of conceptions in the mind of another, whereof he has none in his own. Till he has some ideas of his own, he cannot suppose them to correspond with the conceptions of another man; nor can he use any signs for them: for thus they would be the signs of he knows not what, which is in truth to be the signs of nothing. But when he represents to himself other men's ideas by some of his own, if he consent to give them the same names that other men do, it is still to his own ideas; to ideas that he has, and not to ideas that he has not.

§. 3. This is so necessary in the use of language, that in this respect the knowing and the ignorant, the learned and unlearned, use the words they speak (with any meaning) all alike. They, in every man's mouth, stand for the ideas he has, and which he would express by them. A child having taken notice of nothing in

the metal he hears called gold, but the bright shining yellow colour, he applies the word gold only to his own idea of that colour, and nothing else; and therefore calls the same colour in a peacock's tail gold. Another that hath better observed, adds to shining yellow great weight: and then the sound gold when he uses it, stands for a complex idea of a shining yellow and very weighty substance. Another adds to those qualities fusibility: and then the word gold signifies to him a body, bright, yellow, fusible, and very heavy. Another adds malleability. Each of these uses equally the word gold when they have occasion to express the idea which they have applied it to: but it is evident, that each can apply it only to his own idea; nor can he make it stand as a sign of such a complex idea as he has not.

Words often secretly referred, first to the ideas in other men's minds.

§. 4. But though words, as they are used by men, can properly and immediately signify nothing but the ideas that are in the mind of the speaker; yet they in their thoughts give them a secret reference to two other things.

First, They suppose their words to be marks of the ideas in the minds also of other men, with whom they communicate: for else they should talk in vain, and could not be understood, if the sounds they applied to one idea were such as by the hearer were applied to another; which is to speak two languages. But in this, men stand not usually to examine, whether the idea they and those they discourse with have in their minds, be the same; but think it enough that they use the word, as they imagine, in the common acceptation of that language; in which they suppose, that the idea they make it a sign of is precisely the same, to which the understanding men of that country apply that name.

Secondly, to the reality of things.

§. 5. Secondly, Because men would not be thought to talk barely of their own imaginations, but of things as really they are; therefore they often suppose the words to stand also for the reality of things. But this relating more

particularly to substances, and their names, as perhaps the former does to simple ideas and modes, we shall speak of these two different ways of applying words more at large, when we come to treat of the names of fixed modes, and substances in particular: though give me leave here to say, that it is a perverting the use of words, and brings unavoidable obscurity and confusion into their signification, whenever we make them stand for any thing, but those ideas we have in our own minds.

Words by use readily excite ideas.

§. 6. Concerning words also it is farther to be considered: first, that they being immediately the signs of men's ideas, and by that means the instruments whereby men communicate their conceptions, and express to one another those thoughts and imaginations they have within their own breasts; there comes by constant use to be such a connexion between certain sounds and the ideas they stand for, that the names heard, almost as readily excite certain ideas, as if the objects themselves, which are apt to produce them, did actually affect the senses. Which is manifestly so in all obvious sensible qualities; and in all substances, that frequently and familiarly occur to us.

Words often used without signification.

§. 7. Secondly, That though the proper and immediate signification of words are ideas in the mind of the speaker, yet because by familiar use from our cradles we come to learn certain articulate sounds very perfectly, and have them readily on our tongues, and always at hand in our memories, but yet are not always careful to examine, or settle their significations perfectly; it often happens that men, even when they would apply themselves to an attentive consideration, do set their thoughts more on words than things. Nay, because words are many of them learned before the ideas are known for which they stand; therefore some, not only children, but men, speak several words no otherwise than parrots do, only because they have learned them, and have been accustomed to those sounds. But so far as words are of use and signification, so far is there a constant con-

nexion between the sound and the idea, and a designation that the one stands for the other; without which application of them, they are nothing but so much insignificant noise.

Their signification perfectly arbitrary.

§. 8. Words by long and familiar use, as has been said, come to excite in men certain ideas so constantly and readily, that they are apt to suppose a natural connexion between them. But that they signify only men's peculiar ideas, and that by a perfect arbitrary imposition, is evident in that they often fail to excite in others (even that use the same language) the same ideas we take them to be the signs of: and every man has so inviolable a liberty to make words stand for what ideas he pleases, that no one hath the power to make others have the same ideas in their minds that he has, when they use the same words, that he does. And therefore the great Augustus himself, in the possession of that power which ruled the world, acknowledged he could not make a new Latin word: which was as much as to say, that he could not arbitrarily appoint what idea any sound should be a sign of, in the mouths and common language of his subjects. It is true, common use by a tacit consent appropriates certain sounds to certain ideas in all languages, which so far limits the signification of that sound, that unless a man applies it to the same idea, he does not speak properly: and let me add, that unless a man's words excite the same ideas in the hearer, which he makes them stand for in speaking, he does not speak intelligibly. But whatever be the consequence of any man's using of words differently, either from their general meaning, or the particular sense of the person to whom he addresses them, this is certain, their signification, in his use of them, is limited to his ideas, and they can be signs of nothing else.

CHAP. III.

Of General Terms.

The greatest part of words general.

§. 1. ALL things that exist being particulars, it may perhaps be thought reasonable that words, which ought to be conformed to things, should be so too; I mean in their signification: but yet we find the quite contrary. The far greatest part of words, that make all languages, are general terms; which has not been the effect of neglect or chance, but of reason and necessity.

For every particular thing to have a name is impossible.

§. 2. First, It is impossible that every particular thing should have a distinct peculiar name. For the signification and use of words, depending on that connexion which the mind makes between its ideas and the sounds it uses as signs of them, it is necessary, in the application of names to things that the mind should have distinct ideas of the things, and retain also the particular name that belongs to every one, with its peculiar appropriation to that idea. But it is beyond the power of human capacity to frame and retain distinct ideas of all the particular things we meet with: every bird and beast men saw, every tree and plant that affected the senses, could not find a place in the most capacious understanding. If it be looked on as an instance of a prodigious memory, that some generals have been able to call every soldier in their army by his proper name, we may easily find a reason, why men have never attempted to give names to each sheep in their flock, or crow that flies over their heads; much less to call every leaf of plants, or grain of sand that came in their way, by a peculiar name.

And useless.

§. 3. Secondly, If it were possible, it would yet be useless; because it would not serve to the chief end of language. Men would in vain heap up names of particular things, that would not

serve them to communicate their thoughts. Men learn names, and use them in talk with others, only that they may be understood: which is then only done, when by use or consent the sound I make by the organs of speech, excites in another man's mind, who hears it, the idea I apply it to in mine, when I speak it. This cannot be done by names applied to particular things, whereof I alone having the ideas in my mind, the names of them could not be significant or intelligible to another, who was not acquainted with all those very particular things which had fallen under my notice.

§. 4. Thirdly, But yet granting this also feasible (which I think is not) yet a distinct name for every particular thing would not be of any great use for the improvement of knowledge: which, though founded in particular things, enlarges itself by general views; to which things reduced into sorts under general names, are properly subservient. These, with the names belonging to them, come within some compass, and do not multiply every moment, beyond what either the mind can contain, or use requires: and therefore, in these, men have for the most part stopped; but yet not so as to hinder themselves from distinguishing particular things, by appropriated names, where convenience demands it. And therefore in their own species, which they have most to do with, and wherein they have often occasion to mention particular persons, they make use of proper names; and there distinct individuals have distinct denominations.

What things have proper names.

§. 5. Besides persons, countries also, cities, rivers, mountains, and other the like distinctions of place, have usually found peculiar names, and that for the same reason; they being such as men have often an occasion to mark particularly, and as it were set before others in their discourses with them. And I doubt not, but if we had reason to mention particular horses, as often as we have to mention particular men, we should have proper names for the one, as familiar as for the other; and Bucephalus would be a word as much in use, as

Alexander. And therefore we see that, amongst jockeys, horses have their proper names to be known and distinguished by, as commonly as their servants; because, amongst them, there is often occasion to mention this or that particular horse, when he is out of sight.

How general words are made.

§. 6. The next thing to be considered, is, how general words come to be made. For since all things that exist are only particulars, how come we by general terms, or where find we those general natures they are supposed to stand for? Words become general, by being made the signs of general ideas; and ideas become general, by separating from them the circumstances of time, and place, and any other ideas, that may determine them to this or that particular existence. By this way of abstraction they are made capable of representing more individuals than one; each of which having in it a conformity to that abstract idea, is (as we call it) of that sort.

§. 7. But to deduce this a little more distinctly, it will not perhaps be amiss to trace our notions and names from their beginning, and observe by what degrees we proceed, and by what steps we enlarge our ideas from our first infancy. There is nothing more evident than that the ideas of the persons children converse with (to instance in them alone) are like the persons themselves, only particular. The ideas of the nurse, and the mother, are well framed in their minds; and, like pictures of them there, represent only those individuals. The names they first gave to them are confined to these individuals; and the names of nurse and mamma the child uses, determine themselves to those persons. Afterwards, when time and a larger acquaintance have made them observe, that there are a great many other things in the world that in some common agreements of shape, and several other qualities, resemble their father and mother, and those persons they have been used to, they frame an idea, which they find those many particulars do partake in; and to that they give, with others, the name man for ex-

ample. And thus they come to have a general name, and a general idea. Wherein they make nothing new, but only leave out of the complex idea they had of Peter and James, Mary and Jane, that which is peculiar to each, and retain only what is common to them all.

§. 8. By the same way that they come by the general name and idea of man, they easily advance to more general names and notions. For observing that several things that differ from their idea of man, and cannot therefore be comprehended under that name, have yet certain qualities wherein they agree with man, by retaining only those qualities, and uniting them into one idea, they have again another and more general idea; to which having given a name, they make a term of a more comprehensive extension: which new idea is made, not by any new addition, but only, as before, by leaving out the shape, and some other properties signified by the name man, and retaining only a body, with life, sense, and spontaneous motion, comprehended under the name animal.

General natures are nothing but abstract ideas.

§. 9. That this is the way whereby men first formed general ideas, and general names to them, I think, is so evident, that there needs no other proof of it, but the considering of a man's self, or others, and the ordinary proceedings of their minds in knowledge: and he that thinks general natures or notions are any thing else but such abstract and partial ideas of more complex ones, taken at first from particular existences, will, I fear, be at a loss where to find them. For let any one reflect, and then tell me, wherein does his idea of man differ from that of Peter and Paul, or his idea of horse from that of Bucephalus, but in the leaving out something that is peculiar to each individual, and retaining so much of those particular complex ideas of several particular existences, as they are found to agree in? Of the complex ideas signified by the names man and horse, leaving out but those particulars wherein they differ, and retaining only those wherein they agree, and of those making a new distinct complex

idea, and giving the name animal to it; one has a more general term, that comprehends with man several other creatures. Leave out of the idea of animal, sense and spontaneous motion; and the remaining complex idea, made up of the remaining simple ones of body, life, and nourishment, becomes a more general one, under the more comprehensive term vivens. And not to dwell longer upon this particular, so evident in itself, by the same way the mind proceeds to body, substance, and at last to being, thing, and such universal terms which stand for any of our ideas whatsoever. To conclude, this whole mystery of genera and species, which make such a noise in the schools, and are with justice so little regarded out of them, is nothing else but abstract ideas, more or less comprehensive, with names annexed to them. In all which this is constant and unvariable, that every more general term stands for such an idea, and is but a part of any of those contained under it.

Why the genus is ordinarily made use of in definitions.

§. 10. This may show us the reason, why, in the defining of words, which is nothing but declaring their significations, we make use of the genus, or next general word that comprehends it. Which is not out of necessity, but only to save the labour of enumerating the several simple ideas, which the next general word or genus stands for; or, perhaps, sometimes the shame of not being able to do it. But though defining by genus and differentia (I crave leave to use these terms of art, though originally Latin, since they most properly suit those notions they are applied to) I say, though defining by the genus be the shortest way, yet I think it may be doubted whether it be the best. This I am sure, it is not the only, and so not absolutely necessary. For definition being nothing but making another understand by words what idea the term defined stands for, a definition is best made by enumerating those simple ideas that are combined in the signification of the term defined; and if instead of such an enumeration, men have accustomed themselves to use the next general term; it has not been out of necessity, or for

greater clearness, but for quickness and dispatch sake. For, I think, that to one who desired to know what idea the word man stood for, if it should be said, that man was a solid extended substance, having life, sense, spontaneous motion, and the faculty of reasoning: I doubt not but the meaning of the term man would be as well understood, and the idea it stands for be at least as clearly made known, as when it is defined to be a rational animal; which by the several definitions of animal, vivens, and corpus, resolves itself into those enumerated ideas. I have, in explaining the term man, followed here the ordinary definition of the schools: which though, perhaps, not the most exact, yet serves well enough to my present purpose. And one may, in this instance, see what gave occasion to the rule, that a definition must consist of genus and differentia; and it suffices to show us the little necessity there is of such a rule, or advantage in the strict observing of it. For definitions, as has been said, being only the explaining of one word by several others, so that the meaning or idea it stands for may be certainly known; languages are not always so made according to the rules of logic, that every term can have its signification exactly and clearly expressed by two others. Experience sufficiently satisfies us to the contrary; or else those who have made this rule have done ill, that they have given us so few definitions conformable to it. But of definitions more in the next chapter.

General and universal are creatures of the understanding.

§. 11. To return to general words, it is plain by what has been said, that general and universal belong not to the real existence of things; but are the inventions and creatures of the understanding, made by it for its own use, and concern only signs, whether words or ideas. Words are general, as has been said, when used for signs of general ideas, and so are applicable indifferently to many particular things: and ideas are general, when they are set up as the representatives of many particular things: but universality belongs not to things themselves, which are all of them particular in their existence; even those words and ideas, which in

their signification are general. When therefore we quit particulars, the generals that rest are only creatures of our own making; their general nature being nothing but the capacity they are put into by the understanding, of signifying or representing many particulars. For the signification they have is nothing but a relation, that by the mind of man is added to them (1).

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(1) Against this the bishop of Worcester objects, and our author * answers as followeth: 'however, saith the bishop, the abstracted ideas 'are the work of the mind, yet they are not mere creatures of the mind; 'as appears by an instance produced of the essence of the sun being in 'one single individual; in which case it is granted, That the idea may 'be so abstracted, that more suns might agree in it, and it is as much a 'sort, as if there were as many suns as there are stars. So that here we 'have a real essence subsisting in one individual, but capable of being 'multiplied into more, and the same essence remaining. But in this one 'sun there is a real essence, and not a mere nominal, or abstracted essence: 'but suppose there were more suns; would not each of them have the 'real essence of the sun? For what is it makes the second sun, but having 'the same real essence with the first? If it were but a nominal essence, 'then the second would have nothing but the name.'

This, as I understand, replies Mr. Locke, is to prove that the abstract general essence of any sort of things, or things of the same denomination, v. g. of man or marigold, hath a real being out of the understanding? which, I confess, I am not able to conceive. Your lordship's proof here brought out of my essay, concerning the sun, I humbly conceive, will not reach it; because what is said there, does not at all concern the real but nominal essence, as is evident from hence, that the idea I speak of there, is a complex idea; but we have no complex idea of the internal constitution or real essence of the sun. Besides, I say expressly, That our distinguishing substances into species, by names, is not at all founded on their real essences. So that the sun being one of these substances, I cannot, in the place quoted by your lordship, be supposed to mean by essence of the sun, the real essence of the sun, unless I had so expressed it. But all this argument will be at an end, when your lordship shall have explained what you mean by these words, 'true sun.' In my sense of them, any thing will be a true sun to which the name sun may be truly and properly applied, and to that substance or thing the name sun may be truly and properly applied, which has united in it that combination of sensible qualities, by which any thing else, that is called sun, is distinguished from other substances, i. e. by the nominal essence; and thus our sun is denominated and distinguished from a fixed star, not by a real essence that we do not know (for if we did, it is possible we should find the real essence or constitution of one of the fixed stars to be the same

* In his first letter.

§. 12. The next thing therefore to be considered, is, what kind of signification it is, that general words have. For as it is evident, that they do not signify barely one particular thing; for then they would not be general terms, but proper names; so on the other side it is as evident, they do not signify a plurality;

Abstract ideas are the essences of the genera and species.

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with that of our sun) but by a complex idea of sensible qualities co-existing, which, wherever they are found, make a true sun. And thus I crave leave to answer your lordship's question: 'for what is it makes the second sun to be a true sun, but having the same real essence with the first? If it were but a nominal essence, then the second would have nothing but the name.'

I humbly conceive, if it had the nominal essence, it would have something besides the name, viz. That nominal essence, which is sufficient to denominate it truly a sun, or to make it be a true sun, though we know nothing of that real essence whereon that nominal one depends. Your lordship will then argue, that that real essence is in the second sun, and makes the second sun. I grant it, when the second sun comes to exist, so as to be perceived by us to have all the ideas contained in our complex idea, i. e. in our nominal essence of a sun. For should it be true, (as is now believed by astronomers) that the real essence of the sun were in any of the fixed stars, yet such a star could not for that be by us called a sun, whilst it answers not our complex idea, or nominal essence of a sun. But how far that will prove, that the essences of things, as they are knowable by us, have a reality in them distinct from that of abstract ideas in the mind, which are merely creatures of the mind, I do not see; and we shall farther inquire, in considering your lordship's following words. 'Therefore,' say you, 'there must be a real essence in every individual of the same kind.' Yes, and I beg leave of your lordship to say, of a different kind too. For that alone is it which makes it to be what it is.

That every individual substance has real, internal, individual constitution, i. e. a real essence, that makes it to be what it is, I readily grant. Upon this your lordship says, 'Peter, James, and John, are all true and real men.' Answ. Without doubt, supposing them to be men, they are true and real men, i. e. supposing the name of that species belongs to them. And so three bobaques are all true and real bobaques, supposing the name of that species of animals belongs to them.

For I beseech your lordship to consider, whether in your way of arguing, by naming them, Peter, James, and John, names familiar to us, as appropriated to individuals of the species man, your lordship does not first suppose them men, and then very safely ask, whether they be not all true and real men? But if I should ask your lordship, whether Weweena, Chuckery, and Cousheda, were true and real men or no? Your lordship would not be able to tell me, till, I having pointed out to your lordship the individuals called by those names, your lordship, by examining whe-

for man, and men would then signify the same, and the distinction of numbers (as the grammarians call them) would be superfluous and useless. That then which general words signify is a sort of things; and each of them does that, by being a sign of an abstract idea in the mind, to which idea, as things existing are found to agree, so they come to be ranked under that name;

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ther they had in them those sensible qualities which your lordship has combined into that complex idea to which you give the specific name man, determined them all, or some of them, to be the species which you call man, and so to be true and real man; which when your lordship has determined, it is plain you did it by that which is only the nominal essence, as not knowing the real one. But your lordship farther asks, 'What 'is it makes Peter, James, and John real men? Is it the attributing the 'general name to them? No, certainly; but that the true and real es- 'sence of a man is in every one of them.'

If, when your lordship asks, 'What makes them men?' your lordship used the word making in the proper sense for the efficient cause, and in that sense it were true, that the essence of a man, i. e. the specific essence of that species made a man; it would undoubtedly follow, that this specific essence had a reality beyond that of being only a general abstract idea in the mind. But when it is said, that it is the true and real essence of a man in every one of them that makes Peter, James and John true and real men, the true and real meaning of these words is no more, but that the essence of that species, i. e. the properties answering the complex abstract idea to which the specific name is given, being found in them, that makes them be properly and truly called men, or is the reason why they are called men. Your lordship adds, 'and we must be as certain of 'this, as we are that they are men.'

How, I beseech your lordship, are we certain that they are men, but only by our senses, finding those properties in them which answer the abstract complex idea, which is in our minds, of the specific idea to which we have annexed the specific name man? This I take to be the true meaning of what your lordship says in the next words, viz. 'They 'take their denomination of being men from that common nature or 'essence which is in them;' and I am apt to think, these words will not hold true in any other sense.

Your lordship's fourth inference begins thus: 'That the general idea 'is not made from the simple ideas by the mere act of the mind abstract- 'ing from circumstances, but from reason and consideration of the na- 'ture of things.'

I thought, my lord, that reason and consideration had been acts of the mind, mere acts of the mind, when any thing was done by them. Your lordship gives a reason for it, viz. 'For, when we see several individuals 'that have the same powers and properties, we thence infer, that there 'must be something common to all, which makes them of one kind.'

or, which is all one, be of that sort. Whereby it is evident, that the essences of the sorts, or (if the Latin word pleases better) species of things, are nothing else but these abstract ideas. For the having the essence of any species, being that which makes any thing to be of that species, and the conformity to the idea to which the name is annexed, being that which gives a right to that

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I grant the inference to be true; but must beg leave to deny that this proves, that the general idea the name is annexed to, is not made by the mind. I have said, and it agrees with what your lordship here says, * That 'the mind, in making its complex ideas of substances, only follows nature, and puts no ideas together, which are not supposed to have 'an union in nature. Nobody joins the voice of a sheep with the shape 'of an horse; nor the colour of lead with the weight and fixedness of gold, 'to be the complex ideas of any real substances; unless he has a mind 'to fill his head with chimeras, and his discourses with unintelligible 'words. Men observing certain qualities always joined and existing together, therein copied nature, and of ideas so united, made their complex 'ones of substance, &c.' Which is very little different from what your lordship here says, that it is from our observation of individuals, that we come to infer, 'that there is something common to them all.' But I do not see how it will thence follow, that the general or specific idea is not made by the mere act of the mind. No, says your lordship, 'There is 'something common to them all, which makes them of one kind; and 'if the difference of kinds be real, that which makes them all of one kind 'must not be a nominal, but real essence.'

This may be some objection to the name of nominal essence; but is, as I humbly conceive, none to the thing designed by it. There is an internal constitution of things, on which their properties depend. This your lordship and I are agreed of, and this we call the real essence. There are also certain complex ideas, or combinations of these properties in men's minds, to which they commonly annex specific names, or names of sorts or kinds of things. This, I believe, your lordship does not deny. These complex ideas, for want of a better name, I have called nominal essences; how properly, I will not dispute. But if any one will help me to a better name for them, I am ready to receive it; till then, I must, to express myself, use this. Now, my lord, body, life, and the power of reasoning, being not the real essence of a man, as I believe your lordship will agree, will your lordship say, that they are not enough to make the thing wherein they are found, of the kind called man, and not of the kind called baboon, because the difference of these kinds is real? If this be not real enough to make the thing of one kind and not of another, I do not see how animal rationale can be enough really to distinguish a man from an horse; for that is but the nominal, not real essence of that kind, designed by the name

* B. 3. C. 6. §. 28, 29.

name; the having the essence, and the having that conformity, must needs be the same thing: since to be of any species, and to have a right to the name of that species, is all one. As for example, to be a man, or of the species man, and to have a right to the name man, is the same thing. Again, to be a man, or of the species man, and have the essence of a man, is the same thing.

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man: and yet I suppose, every one thinks it real enough to make a real difference between that and other kinds. And if nothing will serve the turn, to MAKE things of one kind and not of another (which, as I have showed, signifies no more but ranking of them under different specific names) but their real unknown constitutions, which are the real essences we are speaking of, I fear it would be a long while before we should have really different kinds of substances, or distinct names for them, unless we could distinguish them by these differences, of which we have no distinct conceptions. For I think it would not be readily answered me, if I should demand, wherein lies the real difference in the internal constitution of a stag from that of a buck, which are each of them very well known to be of one kind, and not of the other; and nobody questions but that the kinds, whereof each of them is, are really different.

Your lordship farther says, 'And this difference doth not depend upon 'the complex ideas of substances, whereby men arbitrarily join modes 'together in their minds.' I confess, my lord, I know not what to say to this, because I do not know what these complex ideas of substances are, whereby men arbitrarily join modes together in their minds. But I am apt to think there is a mistake in the matter, by the words that follow, which are these: 'For let them mistake in their complication of 'ideas, either in leaving out or putting in what doth not belong to them; 'and let their ideas be what they please, the real essence of a man, and 'an horse, and a tree, are just what they were.'

The mistake I spoke of, I humbly suppose, is this, that things are here taken to be distinguished by their real essences; when, by the very way of speaking of them, it is clear, that they are already distinguished by their nominal essences, and are so taken to be. For what, I beseech your lordship, does your lordship mean, when you say, 'The real essence of a 'man, and an horse, and a tree,' but that there are such kinds already set out by the signification of these names, man, horse, tree? And what, I beseech your lordship, is the signification of each of these specific names, but the complex idea it stands for? And that complex idea is the nominal essence, and nothing else. So that taking man, as your lordship does here, to stand for a kind or sort of individuals, all which agree in that common complex idea, which that specific name stands for, it is certain that the real essence of all the individuals comprehended under the specific name man, in your use of it, would be just the same; let others leave out or put into their complex idea of man what they please; because

Now since nothing can be a man, or have a right to the name man, but what has a conformity to the abstract idea the name man stands for; nor any thing be a man, or have a right to the species man, but what has the essence of that species; it follows, that the abstract idea for which the name stands, and the essence of the species, is one and the same. From whence it is easy to observe, that the essences of the sorts of things, and consequently the sorting of this, is the workmanship of the understanding, that abstracts and makes those general ideas.

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the real essence on which that unaltered complex idea, i.e those properties depend, must necessarily be concluded to be the same.

For I take it for granted, that in using the name man, in this place, your lordship uses it for that complex idea which is in your lordship's mind of that species. So that your lordship, by putting it for, or substituting it in the place of that complex idea where you say the real essence of it is just as it was, or the very same as it was, does suppose the idea it stands for to be steadily the same. For if I change the signification of the word man, whereby it may not comprehend just the same individuals which in your lordship's sense it does, but shut out some of those that to your lordship are men in your signification of the word man, or take in others to which your lordship does not allow the name man; I do not think you will say, that the real essence of man in both these senses is the same. And yet your lordship seems to say so, when you say, 'Let men mistake in the complication of their ideas, either in leaving out or putting in what doth not belong to them;' and let their ideas be what they please, the real essence of the individuals comprehended under the names annexed to these ideas, will be the same: for so, I humbly conceive, it must be put, to make out what your lordship aims at. For as your lordship puts it by the name of man, or any other specific name, your lordship seems to me to suppose, that that name stands for, and not for the same idea, at the same time.

For example, my lord, let your lordship's idea, to which you annex the sign man, be a rational animal: let another man's idea be a rational animal of such a shape; let a third man's idea be of an animal of such a size and shape, leaving out rationality; let a fourth's be an animal with a body of such a shape, and an immaterial substance, with a power of reasoning; let a fifth leave out of his idea an immaterial substance. It is plain every one of these will call his a man, as well as your lordship; and yet it is as plain that men, as standing for all these distinct, complex ideas, cannot be supposed to have the same internal constitution, i. e. the same real essence. The truth is, every distinct abstract idea with a name to it, makes a real distinct kind, whatever the real essence (which we know not of any of them) be.

They are the workmanship of the understanding, but have their foundation in the similitude of things.

§. 13. I would not here be thought to forget, much less to deny, that nature in the production of things makes several of them alike: there is nothing more obvious, especially in the races of animals, and all things propagated by seed. But yet, I think, we may say the sorting of them under names is the workmanship of the understanding, taking occasion from the similitude it observes amongst them to make abstract general ideas, and set them up in the mind, with names annexed to them as patterns or forms (for in that sense the word form has a very proper signification) to which as particular things existing are found to agree, so they come to be of that spe-

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And therefore I grant it true what your lordship says in the next words, 'And let the nominal essences differ never so much, the real common es-'sence or nature of the several kinds, are not at all altered by them,' i. e. That our thoughts or ideas cannot alter the real constitutions that are in things that exist, there is nothing more certain. But yet it is true, that the change of ideas, to which we annex them, can and does alter the signification of their names, and thereby alter the kinds, which by these names we rank and sort them into. Your lordship farther adds, 'And 'these real essences are unchangeable,' i. e. the internal constitutions are unchangeable. Of what, I beseech your lordship, are the internal constitutions unchangeable? Not of any thing that exists, but of God alone; for they may be changed all as easily by that hand that made them, as the internal frame of a watch. What then is it that is unchangeable? The internal constitution, or real essence of a species; which, in plain English, is no more but this, whilst the same specific name, v. g. of man, horse, or tree, is annexed to, or made the sign of the same abstract complex idea, under which I rank several individuals; it is impossible but the real constitution on which that unaltered, complex idea, or nominal essence depends, must be the same, i. e. in other words, where we find all the same properties, we have reason to conclude there is the same real, internal constitution from which those properties flow.

But your lordship proves the real essences to be unchangeable, because God makes them, in these following words: 'For, however there may 'happen some variety in individuals by particular accidents, yet the es-'sences of men, and horses, and trees, remain always the same; because 'they do not depend on the ideas of men, but on the will of the Creator, 'who hath made several sorts of beings.'

It is true, the real constitutions or essences of particular things existing do not depend on the ideas of men, but on the will of the Creator: but their being ranked into sorts, under such and such names, does depend, and wholly depend, on the ideas of men.

cies, have that denomination, or are put into that classis. For when we say, this is a man, that a horse; this justice, that cruelty; this a watch, that a jack; what do we else but rank things under different specific names, as agreeing to those abstract ideas, of which we have made those names the signs? And what are the essences of those species set out and marked by names, but those abstract ideas in the mind; which are as it were the bonds between particular things that exist and the names they are to be ranked under? And when general names have any connexion with particular beings, these abstract ideas are the medium that unites them: so that the essences of species, as distinguished and denominated by us, neither are nor can be any thing but these precise abstract ideas we have in our minds. And therefore the supposed real essences of substances, if different from our abstract ideas, cannot be the essences of the species we rank things into. For two species may be one as rationally, as two different essences be the essence of one species: and I demand what are the alterations may or may not be in a horse or lead, without making either of them to be of another species? In determining the species of things by our abstract ideas, this is easy to resolve: but if any one will regulate himself herein by supposed real essences, he will, I suppose, be at a loss; and he will never be able to know when any thing precisely ceases to be of the species of a horse or lead.

Each distinct abstract idea is a distinct essence.

§. 14. Nor will any one wonder, that I say these essences, or abstract ideas, (which are the measures of name, and the boundaries of species) are tho workmanship of the understanding, who considers, that at least the complex ones are often, in several men, different collections of simple ideas: and therefore that is covetousness to one man, which is not so to another. Nay, even in substances, where their abstract ideas seem to be taken from the things themselves, they are not constantly the same; no not in that species which is most familiar to us, and with which we have the most intimate acquaintance: it having been more than once doubted, whether the fœtus born of a woman were a man; even so far, as that it

hath been debated, whether it were or were not to be nourished and baptized: which could not be, if the abstract idea or essence, to which the name man belonged, were of nature's making; and were not the uncertain and various collection of simple ideas, which the understanding put together, and then abstracting it, affixed a name to it. So that in truth every distinct abstract idea is a distinct essence: and the names that stand for such distinct ideas are the names of things essentially different. Thus a circle is as essentially different from an oval, as a sheep from a goat: and rain is as essentially different from snow, as water from earth; that abstract idea which is the essence of one being impossible to be communicated to the other. And thus any two abstract ideas, that in any part vary one from another, with two distinct names annexed to them, constitute two distinct sorts, or, if you please, species, as essentially different as any two of the most remote, or opposite in the world.

Real and nominal essence.

§. 15. But since the essences of things are thought, by some, (and not without reason) to be wholly unknown; it may not be amiss to consider the several significations of the word essence.

First, essence may be taken for the being of any thing, whereby it is what it is. And thus the real internal, but generally, in substances, unknown constitution of things, whereon their discoverable qualities depend, may be called their essence. This is the proper original signification of the word, as is evident from the formation of it; essentia, in its primary notation, signifying properly being. And in this sense it is still used, when we speak of the essence of particular things, without giving them any name.

Secondly, the learning and disputes of the schools having been much busied about genus and species, the word essence has almost lost its primary signification: and instead of the real constitution of things, has been almost wholly applied to the artificial constitution of genus and species. It is true, there is ordinarily supposed a real constitution of the sorts of things; and it

is past doubt, there must be some real constitution, on which any collection of simple ideas co-existing must depend. But it being evident, that things are ranked under names into sorts or species, only as they agree to certain abstract ideas, to which we have annexed those names: the essence of each genus, or sort, comes to be nothing but that abstract idea, which the general, or sortal (if I may have leave so to call it from sort, as I do general from genus) name stands for. And this we shall find to be that which the word essence imports in its most familiar use. These two sorts of essences, I suppose, may not unfitly be termed, the one the real, the other nominal essence.

Constant connexion between the name and nominal essence.

§. 16. Between the nominal essence and the name, there is so near a connexion, that the name of any sort of things cannot be attributed to any particular being but what has this essence, whereby it answers that abstract idea, whereof that name is the sign.

Supposition, that species are distinguished by ther real essences, useless.

§. 17. Concerning the real essences of corporeal substances, (to mention these only) there are, if I mistake not, two opinions. The one is of those, who using the word essence for they know not what, suppose a certain number of those essences, according to which all natural things are made, and wherein they do exactly every one of them partake, and so become of this or that species. The other, and more rational opinion, is of those who look on all natural things to have a real, but unknown constitution of their insensible parts; from which flow those sensible qualities, which serve us to distinguish them one from another, according as we have occasion to rank them into sorts under common denominations. The former of these opinions, which supposes these essences, as a certain number of forms or moulds, wherein all natural things, that exist, are cast, and do equally partake, has, I imagine, very much perplexed the knowledge of natural things. The frequent productions of monsters, in all the species of animals, and of changelings, and other

strange issues of human birth, carry with them difficulties, not possible to consist with this hypothesis: since it is as impossible, that two things, partaking exactly of the same real essence, should have different properties, as that two figures partaking of the same real essence of a circle should have different properties. But were there no other reason against it, yet the supposition of essences that cannot be known, and the making of them nevertheless to be that which distinguishes the species of things, is so wholly useless, and unserviceable to any part of our knowledge, that that alone were sufficient to make us lay it by, and content ourselves with such essences of the sorts or species of things as come within the reach of our knowledge: which, when seriously considered, will be found, as I have said, to be nothing else but those abstract complex ideas, to which we have annexed distinct general names.

Real and nominal essence the same in simple ideas and modes, different in substances.

§. 18. Essences being thus distinguished into nominal and real, we may farther observe, that in the species of simple ideas and modes, they are always the same; but in substances always quite different. Thus a figure including a space between three lines, is the real as well as nominal essence of a triangle; it being not only the abstract idea to which the general name is annexed, but the very essentia or being of the thing itself, that foundation from which all its properties flow, and to which they are all inseparably annexed. But it is far otherwise concerning that parcel of matter, which makes the ring on my finger, wherein these two essences are apparently different. For it is the real constitution of its insensible parts, on which depend all those properties of colour, weight, fusibility, fixedness, &c. which are to be found in it, which constitution we know not, and so having no particular idea of, have no name that is the sign of it. But yet it is its colour, weight, fusibility, fixedness, &c. which makes it to be gold, or gives it a right to that name, which is therefore its nominal essence: since nothing can be called gold but what has a conformity of quali-

ties to that abstract complex idea, to which that name is annexed. But this distinction of essences belonging particularly to substances, we shall, when we come to consider their names, have an occasion to treat of more fully.

Essences ingenerable and incorruptible.

§. 19. That such abstract ideas, with names to them, as we have been speaking of, are essences, may farther appear by what we are told concerning essences, viz. that they are all ingenerable and incorruptible. Which cannot be true of the real constitutions of things which begin and perish with them. All things that exist, besides their author, are all liable to change; especially those things we are acquainted with, and have ranked into bands under distinct names or ensigns. Thus that which was grass to-day, is to-morrow the flesh of a sheep; and within a few days after becomes part of a man: in all which, and the like changes, it is evident their real essence, i. e. that constitution, whereon the properties of these several things depended, is destroyed and perishes with them. But essences being taken for ideas, established in the mind, with names annexed to them, they are supposed to remain steadily the same, whatever mutations the particular substances are liable to. For whatever becomes of Alexander and Bucephalus, the ideas to which man and horse are annexed, are supposed nevertheless to remain the same; and so the essences of those species are preserved whole and undestroyed, whatever changes happen to any, or all of the individuals of those species. By this means the essence of a species rests safe and entire, without the existence of so much as one individual of that kind. For were there now no circle existing any where in the world, (as perhaps that figure exists not any where exactly marked out) yet the idea annexed to that name would not cease to be what it is; nor cease to be as a pattern to determine which of the particular figures we meet with have or have not a right to the name circle, and so to show which of them by having that essence, was of that species. And though there neither were nor had been in nature such a beast as an unicorn, or

such a fish as a mermaid; yet supposing those names to stand for complex abstract ideas that contained no inconsistency in them, the essence of a mermaid is as intelligible as that of a man; and the idea of an unicorn as certain, steady, and permanent as that of a horse. From what has been said it is evident, that the doctrine of the immutability of essences proves them to be only abstract ideas; and is founded on the relation established between them, and certain sounds as signs of them; and will always be true as long as the same name can have the same signification.

Recapitulation.

§. 20. To conclude, this is that which in short I would say, viz. that all the great business of genera and species, and their essences, amounts to no more but this, That men making abstract ideas, and settling them in their minds with names annexed to them, do thereby enable themselves to consider things, and discourse of them as it were in bundles, for the easier and readier improvement and communication of their knowledge; which would advance but slowly, were their words and thoughts confined only to particulars.

CHAP. IV.

Of the Names of Simple Ideas.

Names of simple ideas, modes, and substances, have each something peculiar.

§. 1. THOUGH all words, as I have shown, signify nothing immediately but the ideas in the mind of the speaker; yet upon a nearer survey we shall find that the names of simple ideas, mixed modes, (under which I comprise relations too) and natural substances, have each of them something peculiar and different from the other. For example:

1. Names of simple ideas and sub-

§. 2. First, The names of simple ideas and substances, with the abstract ideas in the mind, which they immediately signify,

intimate also some real existence, from which was derived their original pattern. But the names of mixed modes terminate in the idea that is in the mind, and lead not the thoughts any farther, as we shall see more at large in the following chapter.

stances intimate real existence.

§. 3. Secondly, The names of simple ideas and modes signify always the real as well as nominal essence of their species. But the names of natural substances signify rarely, if ever, any thing but barely the nominal essences of those species; as we shall show in the chapter that treats of the names of substances in particular.

2. Names of simple ideas and modes signify always both real and nominal essence.

§. 4. Thirdly, The names of simple ideas are not capable of any definition; the names of all complex ideas are. It has not, that I know, been yet observed by any body, what words are, and what are not capable of being defined; the want whereof is (as I am apt to think) not seldom the occasion of great wrangling and obscurity in men's discourses, whilst some demand definitions of terms that cannot be defined; and others think they ought not to rest satisfied in an explication made by a more general word, and its restriction, (or, to speak in terms of art, by a genus and difference) when even after such definition made according to rule, those who hear it have often no more a clear conception of the meaning of the word than they had before. This at least I think, that the showing what words are, and what are not capable of definitions, and wherein consists a good definition, is not wholly besides our present purpose; and perhaps will afford so much light to the nature of these signs, and our ideas, as to deserve a more particular consideration.

3. Names of simple ideas undefinable.

§. 5. I will not here trouble myself to prove that all terms are not definable from that progress in infinitum, which it will visibly lead us into, if we should allow that all names could be defined. For if the terms of one definition were still to be defined by

If all were definable, it would be a process in infinitum.

another, where at last should we stop? But I shall from the nature of our ideas, and the signification of our words, show, why some names can, and others cannot be defined, and which they are.

What a definition is.

§. 6. I think it is agreed, that a definition is nothing else but the showing the meaning of one word by several other not synonimous terms. The meaning of words being only the ideas they are made to stand for by him that uses them, the meaning of any term is then showed, or the word is defined, when by other words the idea it is made the sign of, and annexed to, in the mind of the speaker, is as it were represented, or set before the view of another; and thus its signification ascertained: this is the only use and end of definitions; and therefore the only measure of what is, or is not a good definition.

Simple ideas why undefinable.

§. 7. This being premised, I say, that the names of simple ideas, and those only are incapable of being defined. The reason whereof is this, that the several terms of a definition, signifying several ideas, they can all together by no means represent an idea, which has no composition at all: and therefore definition, which is properly nothing but the showing the meaning of one word by several others not signifying each the same thing, can in the names of simple ideas have no place.

Instances; motion.

§. 8. The not observing this difference in our ideas, and their names, has produced that eminent trifling in the schools, which is so easy to be observed in the definitions they give us of some few of these simple ideas. For as to the greatest part of them, even those masters of definitions were fain to leave them untouched, merely by the impossibility they found in it. What more exquisite jargon could the wit of man invent, than this definition, "The act of a being in power, as far forth as in power?" which would puzzle any rational man, to whom it was not already known by its famous absurdity, to guess what word it could ever be supposed to be the explication of. If Tully, asking a Dutchman what "be-

"weeginge" was, should have received this explication in his own language, that it was "actus entis in poten-"tia quatenus in potentia;" I ask whether any one can imagine he could thereby have understood what the word "beweeginge" signified, or have guessed what idea a Dutchman ordinarily had in his mind, and would signify to another, when he used that sound.

§. 9. Nor have the modern philosophers, who have endeavoured to throw off the jargon of the schools, and speak intelligibly, much better succeeded in defining simple ideas, whether by explaining their causes, or any otherwise. The atomists, who define motion to be a passage from one place to another, what do they more than put one synonymous word for another? For what is passage other than motion? And if they were asked what passage was, how would they better define it than by motion? For is it not at least as proper and significant to say, passage is a motion from one place to another, as to say, motion is a passage, &c.? This is to translate, and not to define, when we change two words of the same signification one for another; which, when one is better understood than the other, may serve to discover what idea the unknown stands for; but is very far from a definition, unless we will say every English word in the dictionary is the definition of the Latin word it answers, and that motion is a definition of motus. Nor will the successive application of the parts of the superficies of one body to those of another, which the Cartesians give us, prove a much better definition of motion, when well examined.

Light. §. 10. "The act of perspicuous, as far forth as perspicuous," is another peripatetic definition of a simple idea; which though not more absurd than the former of motion, yet betrays its uselessness and insignificancy more plainly, because experience will easily convince any one, that it cannot make the meaning of the word light (which it pretends to define) at all understood by a blind man; but the definition of motion appears not at first sight so useless, because it escapes this way of trial. For this simple idea, entering by the touch as well as sight, it is im-

possible to show an example of any one, who has no other way to get the idea of motion, but barely by the definition of that name. Those who tell us, that light is a great number of little globules, striking briskly on the bottom of the eye, speak more intelligibly than the schools; but yet these words ever so well understood would make the idea the word light stands for no more known to a man that understands it not before, than if one should tell him, that light was nothing but a company of little tennis-balls, which fairies all day long struck with rackets against some men's foreheads, whilst they passed by others. For granting this explication of the thing to be true; yet the idea of the cause of light, if we had it ever so exact, would no more give us the idea of light itself, as it is such a particular perception in us, than the idea of the figure and motion of a sharp piece of steel would give us the idea of that pain which it is able to cause in us. For the cause of any sensation, and the sensation itself, in all the simple ideas of one sense, are two ideas; and two ideas so different and distant one from another, that no two can be more so. And therefore should Des Cartes's globules strike ever so long on the retina of a man, who was blind by a gutta serena, he would thereby never have any idea of light, or any thing approaching it, though he understood what little globules were, and what striking on another body was, ever so well. And therefore the Cartesians very well distinguish between that light which is the cause of that sensation in us, and the idea which is produced in us by it, and is that which is properly light.

Simple ideas, why undefinable, farther explained.

§. 11. Simple ideas, as has been shown, are only to be got by those impressions objects themselves make on our minds, by the proper inlets appointed to each sort. If they are not received this way, all the words in the world, made use of to explain or define any of their names, will never be able to produce in us the idea it stands for. For words being sounds can produce in us no other simple ideas, than of those very sounds; nor excite any in us, but by that voluntary

connexion which is known to be between them and those simple ideas, which common use has made them signs of. He that thinks otherwise, let him try if any words can give him the taste of a pine-apple, and make him have the true idea of the relish of that celebrated delicious fruit. So far as he is told it has a resemblance with any tastes, whereof he has the ideas already in his memory, imprinted there by sensible objects not strangers to his palate, so far may he approach that resemblance in his mind. But this is not giving us that idea by a definition, but exciting in us other simple ideas by their known names; which will be still very different from the true taste of that fruit itself. In light and colours, and all other simple ideas, it is the same thing; for the signification of sounds is not natural, but only imposed and arbitrary. And no definition of light, or redness, is more fitted, or able to produce either of those ideas in us, than the sound light or red by itself. For to hope to produce an idea of light, or colour, by a sound, however formed, is to expect that sounds should be visible, or colours audible, and to make the ears do the office of all the other senses. Which is all one as to say, that we might taste, smell, and see by the ears; a sort of philosophy worthy only of Sancho Panca, who had the faculty to see Dulcinea by hearsay. And therefore he that has not before received into his mind, by the proper inlet, the simple idea which any word stands for, can never come to know the signification of that word by any other words or sounds whatsoever, put together according to any rules of definition. The only way is by applying to his senses the proper object, and so producing that idea in him, for which he has learned the name already. A studious blind man, who had mightily beat his head about visible objects, and made use of the explication of his books and friends, to understand those names of light and colours, which often came in his way, bragged one day, that he now understood what scarlet signified. Upon which his friend demanding, what scarlet was? the blind man answered, It was like the sound of a trumpet. Just such an under-

standing of the name of any other simple idea will he have, who hopes to get it only from a definition, or other words made use of to explain it.

The contrary showed in complex ideas, by instances of a statue and rainbow.

§. 12. The case is quite otherwise in complex ideas; which consisting of several simple ones, it is in the power of words, standing for the several ideas that make that composition, to imprint complex ideas in the mind, which were never there before, and so make their names be understood. In such collections of ideas, passing under one name, definition, or the teaching the signification of one word by several others, has place, and may make us understand the names of things, which never came within the reach of our senses; and frame ideas suitable to those in other men's minds, when they use those names: provided that none of the terms of the definition stand for any such simple ideas, which he to whom the explication is made has never yet had in his thought. Thus the word statue may be explained to a blind man by other words, when picture cannot; his senses having given him the idea of figure, but not of colours, which therefore words cannot excite in him. This gained the prize to the painter against the statuary; each of which contending for the excellency of his art, and the statuary bragging that his was to be preferred, because it reached farther, and even those who had lost their eyes could yet perceive the excellency of it, the painter agreed to refer himself to the judgment of a blind man; who being brought where there was a statue, made by the one, and a picture drawn by the other, he was first led to the statue, in which he traced with his hands all the lineaments of the face and body, and with great admiration applauded the skill of the workman. But being led to the picture, and having his hands laid upon it, was told, that now he touched the head, and then the forehead, eyes, nose, &c. as his hands moved over the parts of the picture on the cloth, without finding any the least distinction: whereupon he cried out, that certainly that must needs be a very admirable and divine piece of workmanship, which could repre-

sent to them all those parts, where he could neither feel nor perceive any thing.

§. 13. He that should use the word rainbow to one who knew all those colours, but yet had never seen that phænomenon, would, by enumerating the figure, largeness, position and order of the colours, so well define that word, that it might be perfectly understood. But yet that definition, how exact and perfect soever, would never make a blind man understand it; because several of the simple ideas that make that complex one, being such as he never received by sensation and experience, no words are able to excite them in his mind.

The same of complex ideas when to be made intelligible by words.

§. 14. Simple ideas, as has been showed, can only be got by experience, from those objects, which are proper to produce in us those perceptions. When by this means we have our minds stored with them, and know the names for them, then we are in a condition to define, and by definition to understand the names of complex ideas, that are made up of them. But when any term stands for a simple idea, that a man has never yet had in his mind, it is impossible by any words to make known its meaning to him. When any term stands for an idea a man is acquainted with, but is ignorant that that term is the sign of it; there another name, of the same idea which he has been accustomed to, may make him understand its meaning. But in no case whatsoever is any name, of any simple idea, capable of a definition.

4. Names of simple ideas least doubtful.

§. 15. Fourthly, But though the names of simple ideas, have not the help of definition to determine their signification, yet that hinders not but that they are generally less doubtful and uncertain, than those of mixed modes and substances: because they standing only for one simple perception, men, for the most part, easily and perfectly agree in their signification; and there is little room for mistake and wrangling about their meaning. He that knows once that whiteness is the name of that colour he has observed in snow or milk, will not be

apt to misapply that word, as long as he retains that idea; which when he has quite lost, he is not apt to mistake the meaning of it, but perceives he understands it not. There is neither a multiplicity of simple ideas to be put together, which makes the doubtfulness in the names of mixed modes; nor a supposed, but an unknown real essence, with properties depending thereon, the precise number whereof is also unknown, which makes the difficulty in the names of substances. But, on the contrary, in simple ideas the whole signification of the name is known at once, and consists not of parts, whereof more or less being put in, the idea may be varied, and so the signification of name be obscure or uncertain.

5. Simple ideas have few ascents in lineâ prædicamentali.

§. 16. Fifthly, This farther may be observed concerning simple ideas and their names, that they have but few ascents in lineâ prædicamentali (as they call it) from the lowest species to the summum genus. The reason whereof is, that the lowest species being but one simple idea, nothing can be left out of it; that so the difference being taken away it may agree with some other thing in one idea common to them both; which, having one name, is the genus of the other two: v. g. there is nothing that can be left out of the idea of white and red, to make them agree in one common appearance, and so have one general name; as rationality being left out of the complex idea of man, makes it agree with brute, in the more general idea and name of animal: and therefore when to avoid unpleasant enumerations, men would comprehend both white and red, and several other such simple ideas, under one general name, they have been fain to do it by a word, which denotes only the way they get into the mind. For when white, red, and yellow, are all comprehended under the genus or name colour, it signifies no more but such ideas as are produced in the mind only by the sight, and have entrance only through the eyes. And when they would frame yet a more general term, to comprehend both colours and sounds, and the like simple ideas, they do it by a word that signifies all

such as come into the mind only by one sense: and so the general term quality, in its ordinary acceptation, comprehends colours, sounds, tastes, smells, and tangible qualities, with distinction from extension, number, motion, pleasure and pain, which make impressions on the mind, and introduce their ideas by more senses than one.

§. 17. Sixthly, The names of simple ideas, substances, and mixed modes have also this difference; that those of mixed modes stand for ideas perfectly arbitrary; those of substances are not perfectly so, but refer to a pattern, though with some latitude; and those of simple ideas are perfectly taken from the existence of things, and are not arbitrary at all. Which, what difference it makes in the significations of their names, we shall see in the following chapters. 6. Names of simple ideas not at all arbitrary.

The names of simple modes differ little from those of simple ideas.

CHAP. V.

Of the Names of mixed Modes and Relations.

§. 1. THE names of mixed modes being general, they stand, as has been shown, for sorts or species of things, each of which has its peculiar essence. The essences of these species also, as has been showed, are nothing but the abstract ideas in the mind, to which the name is annexed. Thus far the names and essences of mixed modes have nothing but what is common to them with other ideas: but if we take a little nearer survey of them, we shall find that they have something peculiar, which perhaps may deserve our attention. They stand for abstract ideas, as other general names.

1. The ideas they stand for are made by the understanding.

§. 2. The first particularity I shall observe in them, is, that the abstract ideas, or, if you please, the essences of the several species of mixed modes are made by the understanding, wherein they differ from those of simple ideas: in which sort the mind has no power to make any one, but only receives such as are presented to it, by the real existence of things, operating upon it.

2. Made arbitrarily, and without patterns.

§. 3. In the next place, these essences of the species of mixed modes are not only made by the mind, but made very arbitrarily, made without patterns, or reference to any real existence. Wherein they differ from those of substances, which carry with them the supposition of some real being, from which they are taken, and to which they are conformable. But in its complex ideas of mixed modes, the mind takes a liberty not to follow the existence of things exactly. It unites and retains certain collections, as so many distinct specific ideas, whilst others, that as often occur in nature, and are as plainly suggested by outward things, pass neglected, without particular names or specifications. Nor does the mind, in these of mixed modes, as in the complex idea of substances, examine them by the real existence of things; or verify them by patterns, containing such peculiar compositions in nature. To know whether his idea of adultery or incest be right, will a man seek it any where amongst things existing? Or is it true, because any one has been witness to such an action? No: but it suffices here, that men have put together such a collection into one complex idea, that makes the archetype and specific idea, whether ever any such action were committed in rerum natura or no.

How this is done.

§. 4. To understand this right, we must consider wherein this making of these complex ideas consists; and that is not in the making any new idea, but putting together those which the mind had before. Wherein the mind does these three things: first, it chooses a certain number: secondly, it gives them connexion, and makes them into one idea:

thirdly, it ties them together by a name. If we examine how the mind proceeds in these, and what liberty it takes in them, we shall easily observe how these essences of the species of mixed modes are the workmanship of the mind; and consequently, that the species themselves are of men's making.

Evidently arbitrary, in that the idea is often before the existence.

§. 5. Nobody can doubt, but that these ideas of mixed modes are made by a voluntary collection of ideas put together in the mind, independent from any original patterns in nature, who will but reflect that this sort of complex ideas may be made, abstracted, and have names given them, and so a species be constituted, before any one individual of that species ever existed. Who can doubt but the ideas of sacrilege or adultery might be framed in the minds of men, and have names given them; and so these species of mixed modes be constituted, before either of them was ever committed; and might be as well discoursed of and reasoned about, and as certain truths discovered of them, whilst yet they had no being but in the understanding, as well as now, that they have but too frequently a real existence? Whereby it is plain, how much the sorts of mixed modes are the creatures of the understanding, where they have a being as subservient to all the ends of real truth and knowledge, as when they really exist: and we cannot doubt but lawmakers have often made laws about species of actions, which were only the creatures of their own understandings; beings that had no other existence but in their own minds. And I think nobody can deny, but that the resurrection was a species of mixed modes in the mind, before it really existed.

Instances; murder, incest, stabbing.

§. 6. To see how arbitrarily these essences of mixed modes are made by the mind, we need but take a view of almost any of them. A little looking into them will satisfy us, that it is the mind that combines several scattered independent ideas into one complex one, and, by the common name it gives them, makes them the essence of a certain species, without regulating itself by any connexion they have in nature. For what greater

connexion in nature has the idea of a man, than the idea of a sheep, with killing; that this is made a particular species of action, signified by the word murder, and the other not? Or what union is there in nature between the idea of the relation of a father with killing, than that of a son, or neighbour; that those are combined into one complex idea, and thereby made the essence of the distinct species parricide, whilst the other make no distinct species at all? But though they have made killing a man's father, or mother, a distinct species from killing his son, or daughter; yet in some other cases, son and daughter are taken in two, as well as father and mother: and they are all equally comprehended in the same species, as in that of incest. Thus the mind in mixed modes arbitrarily unites into complex ideas such as it finds convenient; whilst others that have altogether as much union in nature, are left loose, and never combined into one idea, because they have no need of one name. It is evident then, that the mind by its free choice gives a connexion to a certain number of ideas, which in nature have no more union with one another, than others that it leaves out: why else is the part of the weapon, the beginning of the wound is made with, taken notice of to make the distinct species called stabbing, and the figure and matter of the weapon left out? I do not say, this is done without reason, as we shall see more by and by; but this I say, that it is done by the free choice of the mind, pursuing its own ends; and that therefore these species of mixed modes are the workmanship of the understanding: and there is nothing more evident, than that, for the most part, in the framing these ideas the mind searches not its patterns in nature, nor refers the ideas it makes to the real existence of things; but puts such together, as may best serve its own purposes, without tying itself to a precise imitation of any thing that really exists.

But still subservient to the end of language.

§. 7. But though these complex ideas, or essences of mixed modes, depend on the mind, and are made by it with great liberty; yet they are not made at random, and jumbled together without any reason at all. Though

these complex ideas be not always copied from nature, yet they are always suited to the end for which abstract ideas are made: and though they be combinations made of ideas that are loose enough, and have as little union in themselves, as several other to which the mind never gives a connexion that combines them into one idea; yet they are always made for the convenience of communication, which is the chief end of language. The use of language is by short sounds to signify with ease and dispatch general conceptions: wherein not only abundance of particulars may be contained, but also a great variety of independent ideas collected into one complex one. In the making therefore of the species of mixed modes, men have had regard only to such combinations as they had occasion to mention one to another. Those they have combined into distinct complex ideas, and given names to; whilst others, that in nature have as near an union, are left loose and unregarded. For to go no farther than human actions themselves, if they would make distinct abstract ideas of all the varieties might be observed in them, the number must be infinite, and the memory confounded with the plenty, as well as overcharged to little purpose. It suffices that men make and name so many complex ideas of these mixed modes, as they find they have occasion to have names for, in the ordinary occurrence of their affairs. If they join to the idea of killing the idea of father, or mother, and so make a distinct species from killing a man's son or neighbour, it is because of the different heinousness of the crime, and the distinct punishment is due to the murdering a man's father and mother, different from what ought to be inflicted on the murder of a son or neighbour; and therefore they find it necessary to mention it by a distinct name, which is the end of making that distinct combination. But though the ideas of mother and daughter are so differently treated, in reference to the idea of killing, that the one is joined with it, to make a distinct abstract idea with a name, and so a distinct species, and the other not; yet in respect of carnal knowledge, they are both taken in under incest: and

that still for the same convenience of expressing under one name, and reckoning of one species, such unclean mixtures as have a peculiar turpitude beyond others; and this to avoid circumlocutions and tedious descriptions.

Whereof the intranslatable words of divers languages are a proof.

§. 8. A moderate skill in different languages will easily satisfy one of the truth of this, it being so obvious to observe great store of words in one language, which have not any that answer them in another. Which plainly shows, that those of one country, by their customs and manner of life, have found occasion to make several complex ideas, and given names to them, which others never collected into specific ideas. This could not have happened, if these species were the steady workmanship of nature, and not collections made and abstracted by the mind, in order to naming, and for the convenience of communication. The terms of our law, which are not empty sounds, will hardly find words that answer them in the Spanish or Italian, no scanty languages; much less, I think, could any one translate them into the Caribbee or Westoe tongues: and the Versura of the Romans, or Corban of the Jews, have no words in other languages to answer them: the reason whereof is plain, from what has been said. Nay, if we look a little more nearly into this matter, and exactly compare different languages, we shall find, that though they have words which in translations and dictionaries are supposed to answer one another, yet there is scarce one of ten amongst the names of complex ideas, especially of mixed modes, that stands for the same precise idea, which the word does that in dictionaries it is rendered by. There are no ideas more common, and less compounded, than the measures of time, extension, and weight, and the Latin names, hora, pes, libra, are without difficulty rendered by the English names, hour, foot, and pound: but yet there is nothing more evident, than that the ideas a Roman annexed to these Latin names, were very far different from those which an Englishman expresses by those English ones. And if either of these should make use of the measures that those of the

other language designed by their names, he would be quite out in his account. These are too sensible proofs to be doubted; and we shall find this much more so, in the names of more abstract and compounded ideas, such as are the greatest part of those which make up moral discourses: whose names, when men come curiously to compare with those they are translated into, in other languages, they will find very few of them exactly to correspond in the whole extent of their significations.

This shows species to be made for communication.

§. 9. The reason why I take so particular notice of this, is, that we may not be mistaken about genera and species, and their essences, as if they were things regularly and constantly made by nature, and had a real existence in things; when they appear, upon a more wary survey, to be nothing else but an artifice of the understanding, for the easier signifying such collections of ideas, as it should often have occasion to communicate by one general term; under which divers particulars, as far forth as they agreed to that abstract idea, might be comprehended. And if the doubtful signification of the word species may make it sound harsh to some, that I say the species of mixed modes are made by the understanding; yet, I think, it can by nobody be denied, that it is the mind makes those abstract complex ideas, to which specific names are given. And if it be true, as it is, that the mind makes the patterns for sorting and naming of things, I leave it to be considered who makes the boundaries of the sort or species; since with me species and sort have no other difference than that of a Latin and English idiom.

In mixed modes it is the name that ties the combination together, and makes it a species.

§. 10. The near relation that there is between species, essences, and their general name, at least in mixed modes, will farther appear, when we consider that it is the name that seems to preserve those essences, and give them their lasting duration. For the connexion between the loose parts of

those complex ideas being made by the mind, this union, which has no particular foundation in nature, would cease again, were there not something that did, as it were, hold it together, and keep the parts from scattering. Though therefore it be the mind that makes the collection, it is the name which is as it were the knot that ties them fast together. What a vast variety of different ideas does the word triumphus hold together, and deliver to us as one species? Had this name been never made, or quite lost, we might, no doubt, have had descriptions of what passed in that solemnity: but yet, I think, that which holds those different parts together, in the unity of one complex idea, is that very word annexed to it; without which the several parts of that would no more be thought to make one thing, than any other show, which having never been made but once, had never been united into one complex idea, under one denomination. How much therefore, in mixed modes, the unity necessary to any essence depends on the mind, and how much the continuation and fixing of that unity depends on the name in common use annexed to it, I leave to be considered by those who look upon essences and species as real established things in nature.

§. 11. Suitable to this, we find, that men speaking of mixed modes, seldom imagine or take any other for species of them, but such as are set out by name: because they being of man's making only, in order to naming, no such species are taken notice of, or supposed to be, unless a name be joined to it, as the sign of man's having combined into one idea several loose ones; and by that name giving a lasting union to the parts, which could otherwise cease to have any, as soon as the mind laid by that abstract idea, and ceased actually to think on it. But when a name is once annexed to it, wherein the parts of that complex idea have a settled and permanent union; then is the essence as it were established, and the species looked on as complete. For to what purpose should the memory charge itself with such compositions, unless it were by abstraction to

make them general? And to what purpose make them general, unless it were that they might have general names for the convenience of discourse and communication? Thus we see, that killing a man with a sword or a hatchet, are looked on as no distinct species of action: but if the point of the sword first enter the body, it passes for a distinct species, where it has a distinct name; as in England, in whose language it is called stabbing: but in another country, where it has not happened to be specified under a peculiar name, it passes not for a distinct species. But in the species of corporeal substances, though it be the mind that makes the nominal essence; yet since those ideas which are combined in it are supposed to have an union in nature, whether the mind joins them or no, therefore those are looked on as distinct names, without any operation of the mind, either abstracting or giving a name to that complex idea.

§. 12. Conformable also to what has been said concerning the essences of the species of mixed modes, that they are the creatures of the understanding, rather than the works of nature; conformable, I say, to this, we find that their names lead our thoughts to the mind, and no farther. When we speak of justice, or gratitude, we frame to ourselves no imagination of any thing existing, which we would conceive; but our thoughts terminate in the abstract ideas of those virtues, and look not farther: as they do, when we speak of a horse, or iron, whose specific ideas we consider not, as barely in the mind, but as in things themselves, which afford the original patterns of those ideas. But in mixed modes, at least the most considerable parts of them, which are moral beings, we consider the original patterns as being in the mind; and to those we refer for the distinguishing of particular beings under names. And hence I think it is, that these essences of the species of mixed modes are by a more particular name called notions, as, by a peculiar right, appertaining to the understanding.

For the originals of mixed modes, we look no farther than the mind, which also shows them to be the workmanship of the understanding.

Their being made by the understanding without patterns shows the reason why they are so compounded.

§. 13. Hence likewise we may learn, why the complex ideas of mixed modes are commonly more compounded and decompounded, than those of natural substances. Because they being the workmanship of the understanding, pursuing only its own ends, and the conveniency of expressing in short those ideas it would make known to another, it does with great liberty unite often into one abstract idea things that in their nature have no coherence; and so, under one term, bundle together a great variety of compounded and decompounded ideas. Thus the name of procession, what a great mixture of independent ideas of persons, habits, tapers, orders, motions, sounds, does it contain in that complex one, which the mind of man has arbitrarily put together, to express by that one name? Whereas the complex ideas of the sorts of substances are usually made up of only a small number of simple ones; and in the species of animals, these two, viz. shape and voice, commonly make the whole nominal essence.

Names of mixed modes stand always for their real essences.

§. 14. Another thing we may observe from what has been said, is, that the names of mixed modes always signify (when they have any determined signification) the real essences of their species. For these abstract ideas being the workmanship of the mind, and not referred to the real existence of things, there is no supposition of any thing more signified by that name, but barely that complex idea the mind itself has formed, which is all it would have expressed by it: and is that on which all the properties of the species depend, and from which alone they all flow: and so in these the real and nominal essence is the same; which of what concernment it is to the certain knowledge of general truth, we shall see hereafter.

Why their names are usually got before their ideas.

§. 15. This also may show us the reason, why for the most part the names of mixed modes are got, before the ideas they stand for are perfectly known. Because there being no species of these ordinarily

taken notice of, but what have names; and those species, or rather their essences, being abstract complex ideas made arbitrarily by the mind; it is convenient, if not necessary, to know the names, before one endeavour to frame these complex ideas: unless a man will fill his head with a company of abstract complex ideas, which others having no names for, he has nothing to do with, but to lay by and forget again. I confess, that in the beginning of languages it was necessary to have the idea, before one gave it the name: and so it is still, where making a new complex idea, one also, by giving it a new name, makes a new word. But this concerns not languages made, which have generally pretty well provided for ideas, which men have frequent occasion to have and communicate: and in such, I ask, whether it be not the ordinary method, that children learn the names of mixed modes, before they have their ideas? What one of a thousand ever frames the abstract ideas of glory and ambition, before he has heard the names of them? In simple ideas and substances I grant it is otherwise; which being such ideas as have a real existence and union in nature, the ideas and names are got one before the other, as it happens.

Reason of my being so large on this subject.

§. 16. What has been said here of mixed modes is with very little difference applicable also to relations; which, since every man himself may observe, I may spare myself the pains to enlarge on: especially, since what I have here said concerning words in this third book, will possibly be thought by some to be much more than what so slight a subject required. I allow it might be brought into a narrower compass: but I was willing to stay my reader on an argument that appears to me new, and a little out of the way, (I am sure it is one I thought not of when I began to write) that by searching it to the bottom, and turning it on every side, some part or other might meet with every one's thoughts, and give occasion to the most averse or negligent to reflect on a general miscarriage; which, though of great consequence, is little taken notice of. When it is considered what a pudder is made about

essences, and how much all sorts of knowledge, discourse, and conversation are pestered and disordered by the careless and confused use and application of words, it will perhaps be thought worth while thoroughly to lay it open. And I shall be pardoned if I have dwelt long on an argument which I think therefore needs to be inculcated; because the faults, men are usually guilty of in this kind, are not only the greatest hindrances of true knowledge, but are so well thought of as to pass for it. Men would often see what a small pittance of reason and truth, or possibly none at all, is mixed with those huffing opinions they are swelled with, if they would but look beyond fashionable sounds, and observe what ideas are, or are not comprehended under those words with which they are so armed at all points, and with which they so confidently lay about them. I shall imagine I have done some service to truth, peace, and learning, if, by any enlargement on this subject, I can make men reflect on their own use of language; and give them reason to suspect, that since it is frequent for others, it may also be possible for them to have sometimes very good and approved words in their mouths and writings, with very uncertain, little, or no signification. And therefore it is not unreasonable for them to be wary herein themselves, and not to be unwilling to have them examined by others. With this design therefore I shall go on with what I have farther to say concerning this matter.

CHAP. VI.

Of the Names of Substances.

The common names of substances stand for sorts.

§. 1. THE common names of substances, as well as other general terms, stand for sorts; which is nothing else but the being made signs of such complex ideas, wherein

several particular substances do, or might agree, by virtue of which they are capable of being comprehended in one common conception, and signified by one name. I say, do or might agree: for though there be but one sun existing in the world, yet the idea of it being abstracted, so that more substances (if there were several) might each agree in it; it is as much a sort, as if there were as many suns as there are stars. They want not their reasons who think there are, and that each fixed star would answer the idea the name sun stands for, to one who was placed in a due distance; which, by the way, may show us how much the sorts, or, if you please, genera and species of things (for those Latin terms signify to me no more than the English word sort) depend on such collections of ideas as men have made, and not on the real nature of things; since it is not impossible but that, in propriety of speech, that might be a sun to one, which is a star to another.

The essence of each sort is the abstract idea.

§. 2. The measure and boundary of each sort, or species, whereby it is constituted that particular sort, and distinguished from others, is that we call its essence, which is nothing but that abstract idea to which the name is annexed: so that every thing contained in that idea is essential to that sort. This, though it be all the essence of natural substances that we know, or by which we distinguish them into sorts; yet I call it by a peculiar name, the nominal essence, to distinguish it from the real constitution of substances, upon which depends this nominal essence, and all the properties of that sort; which therefore, as has been said, may be called the real essence: v. g. the nominal essence of gold is that complex idea the word gold stands for, let it be, for instance, a body yellow, of a certain weight, malleable, fusible, and fixed. But the real essence is the constitution of the insensible parts of that body, on which those qualities, and all the other properties of gold depend. How far these two are different, though they are both called essence, is obvious at first sight to discover.

Thenominal and real essence different.

§. 3. For though perhaps voluntary motion, with sense and reason, joined to a body of a certain shape, be the complex idea to which I, and others, annex the name man, and so be the nominal essence of the species so called; yet nobody will say that complex idea is the real essence and source of all those operations which are to be found in any individual of that sort. The foundation of all those qualities, which are the ingredients of our complex idea, is something quite different; and had we such a knowledge of that constitution of man, from which his faculties of moving, sensation, and reasoning, and other powers flow, and on which his so regular shape depends, as it is possible angels have, and it is certain his Maker has; we should have a quite other idea of his essence than what now is contained in our definition of that species, be it what it will: and our idea of any individual man would be as far different from what it is now, as is his who knows all the springs and wheels, and other contrivances within, of the famous clock at Strasburgh, from that which a gazing countryman has for it, who barely sees the motion of the hand, and hears the clock strike, and observes only some of the outward appearances.

Nothing essential to individuals.

§. 4. That essence, in the ordinary use of the word, relates to sorts; and that it is considered in particular beings no farther than as they are ranked into sorts; appears from hence: that take but away the abstract ideas, by which we sort individuals, and rank them under common names, and then the thought of any thing essential to any of them instantly vanishes; we have no notion of the one without the other; which plainly shows their relation. It is necessary for me to be as I am; God and nature has made me so: but there is nothing I have is essential to me. An accident, or disease, may very much alter my colour, or shape; a fever, or fall, may take away my reason or memory, or both, and an apoplexy leave neither sense nor understanding, no nor life. Other creatures of my shape may be made with more and better, or fewer and worse

faculties than I have; and others may have reason and sense in a shape and body very different from mine. None of these are essential to the one, or the other, or to any individual whatever, till the mind refers it to some sort or species of things; and then presently, according to the abstract idea of that sort, something is found essential. Let any one examine his own thoughts, and he will find that as soon as he supposes or speaks of essential, the consideration of some species, or the complex idea, signified by some general name, comes into his mind; and it is in reference to that, that this or that quality is said to be essential. So that if it be asked, whether it be essential to me or any other particular corporeal being to have reason? I say no; no more than it is essential to this white thing I write on to have words in it. But if that particular being be to be counted of the sort man, and to have the name man given it, then reason is essential to it, supposing reason to be a part of the complex idea the name man stands for: as it is essential to this thing I write on to contain words, if I will give it the name treatise, and rank it under that species. So that essential, and not essential, relate only to our abstract ideas, and the names annexed to them; which amounts to no more but this, that whatever particular thing has not in it those qualities, which are contained in the abstract idea, which any general term stands for, cannot be ranked under that species, nor be called by that name, since that abstract idea is the very essence of that species.

§. 5. Thus if the idea of body, with some people, be bare extension or space, then solidity is not essential to body: if others make the idea, to which they give the name body, to be solidity and extension, then solidity is essential to body. That therefore, and that alone, is considered as essential, which makes a part of the complex idea the name of a sort stands for, without which no particular thing can be reckoned of that sort, nor be intitled to that name. Should there be found a parcel of matter that had all the other qualities that are in iron, but wanted obedience to the loadstone; and would neither be drawn by it, nor receive direction

from it; would any one question, whether it wanted any thing essential? It would be absurd to ask, Whether a thing really existing wanted any thing essential to it? Or could it be demanded, Whether this made an essential or specific difference or no; since we have no other measure of essential or specific but our abstract ideas? And to talk of specific differences in nature, without reference to general ideas and names, is to talk unintelligibly. For I would ask any one, What is sufficient to make an essential difference in nature, between any two particular beings, without any regard had to some abstract idea, which is looked upon as the essence and standard of a species? All such patterns and standards being quite laid aside, particular beings, considered barely in themselves, will be found to have all their qualities equally essential; and every thing, in each individual, will be essential to it, or, which is more, nothing at all. For though it may be reasonable to ask, Whether obeying the magnet be essential to iron? yet, I think, it is very improper and insignificant to ask, Whether it be essential to the particular parcel of matter I cut my pen with, without considering it under the name iron, or as being of a certain species? And if, as has been said, our abstract ideas, which have names annexed to them, are the boundaries of species, nothing can be essential but what is contained in those ideas.

§. 6. It is true, I have often mentioned a real essence, distinct in substances from those abstract ideas of them, which I call their nominal essence. By this real essence I mean the real constitution of any thing, which is the foundation of all those properties that are combined in, and are constantly found to co-exist with the nominal essence; that particular constitution which every thing has within itself, without any relation to any thing without it. But essence, even in this sense, relates to a sort, and supposes a species; for being that real constitution, on which the properties depend, it necessarily supposes a sort of things, properties belonging only to species, and not to individuals; v. g. supposing the nominal essence of gold to be a body of such

a peculiar colour and weight, with malleability and fusibility, the real essence is that constitution of the parts of matter, on which these qualities and their union depend; and is also the foundation of its solubility in aqua regia and other properties accompanying that complex idea. Here are essences and properties, but all upon supposition of a sort, or general abstract idea, which is considered as immutable; but there is no individual parcel of matter, to which any of these qualities are so annexed, as to be essential to it, or inseparable from it. That which is essential belongs to it as a condition, whereby it is of this or that sort; but take away the consideration of its being ranked under the name of some abstract idea, and then there is nothing necessary to it, nothing inseparable from it. Indeed, as to the real essences of substances, we only suppose their being, without precisely knowing what they are: but that which annexes them still to the species, is the nominal essence, of which they are the supposed foundation and cause.

The nominal essence bounds the species.

§. 7. The next thing to be considered, is, by which of those essences it is that substances are determined into sorts, or species; and that, it is evident, is by the nominal essence. For it is that alone that the name, which is the mark of the sort, signifies. It is impossible therefore that any thing should determine the sorts of things, which we rank under general names, but that idea which that name is designed as a mark for; which is that, as has been shown, which we call nominal essence. Why do we say, this is a horse, that a mule; this is an animal, that an herb? How comes any particular thing to be of this or that sort, but because it has that nominal essence, or, which is all one, agrees to that abstract idea that name is annexed to? And I desire any one but to reflect on his own thoughts, when he hears or speaks any of those, or other names of substances, to know what sort of essences they stand for.

§. 8. And that the species of things to us are nothing but the ranking them under distinct names, ac-

cording to the complex ideas in us, and not according to precise, distinct, real essences in them; is plain from hence, that we find many of the individuals that are ranked into one sort, called by one common name, and so received as being of one species, have yet qualities depending on their real constitutions, as far different one from another, as from others, from which they are accounted to differ specifically. This, as it is easy to be observed by all who have to do with natural bodies; so chemists especially are often, by sad experience, convinced of it, when they, sometimes in vain, seek for the same qualities in one parcel of sulphur, antimony or vitriol, which they have found in others. For though they are bodies of the same species, having the same nominal essence, under the same name; yet do they often, upon severe ways of examination, betray qualities so different one from another, as to frustrate the expectation and labour of very wary chemists. But if things were distinguished into species, according to their real essences, it would be as impossible to find different properties in any two individual substances of the same species, as it is to find different properties in two circles, or two equilateral triangles. That is properly the essence to us, which determines every particular to this or that classis; or, which is the same thing, to this or that general name; and what can that be else, but that abstract idea, to which that name is annexed? and so has, in truth, a reference, not so much to the being of particular things, as to their general denominations.

Not the real essence, which we know not.

§. 9. Nor indeed can we rank and sort things, and consequently (which is the end of sorting) denominate them by their real essences, because we know them not. Our faculties carry us no farther towards the knowledge and distinction of substances, than a collection of those sensible ideas which we observe in them; which, however made with the greatest diligence and exactness we are capable of, yet is more remote from the true internal constitution, from which those qualities flow, than, as I said, a countryman's idea is from the inward con-

trivance of that famous clock at Strasburgh, whereof he only sees the outward figure and motions. There is not so contemptible a plant or animal, that does not confound the most enlarged understanding. Though the familiar use of things about us take off our wonder; yet it cures not our ignorance. When we come to examine the stones we tread on, or the iron we daily handle, we presently find we know not their make, and can give no reason of the different qualities we find in them. It is evident the internal constitution, whereon their properties depend, is unknown to us. For to go no farther than the grossest and most obvious we can imagine amongst them, what is that texture of parts, that real essence, that makes lead and antimony fusible; wood and stones not? What makes lead and iron malleable, antimony and stones not? And yet how infinitely these come short of the fine contrivances, and unconceivable real essences of plants or animals, every one knows. The workmanship of the all-wise and powerful God, in the great fabric of the universe, and every part thereof, farther exceeds the capacity and comprehension of the most inquisitive and intelligent man, than the best contrivance of the most ingenious man doth the conceptions of the most ignorant of rational creatures. Therefore we in vain pretend to range things into sorts, and dispose them into certain classes, under names, by their real essences, that are so far from our discovery or comprehension. A blind man may as soon sort things by their colours, and he that has lost his smell, as well distinguish a lily and a rose by their odours, as by those internal constitutions which he knows not. He that thinks he can distinguish sheep and goats by their real essences, that are unknown to him, may be pleased to try his skill in those species, called cassiowary and querechinchio; and by their internal real essences determine the boundaries of those species, without knowing the complex idea of sensible qualities, that each of those names stand for, in the countries where those animals are to be found.

Not substantial forms, which we know less.

§. 10. Those therefore who have been taught, that the several species of substances had their distinct internal substantial forms; and that it was those forms which made the distinction of substances into their true species and genera; were led yet farther out of the way, by having their minds set upon fruitless inquiries after substantial forms, wholly unintelligible, and whereof we have scarce so much as any obscure or confused conception in general.

That the nominal essence is that whereby we distinguish species, farther evident from spirits.

§. 11. That our ranking and distinguishing natural substances into species, consists in the nominal essences the mind makes, and not in the real essences to be found in the things themselves, is farther evident from our ideas of spirits. For the mind getting, only by reflecting on its own operations, those simple ideas which it attributes to spirits, it hath, or can have no other notion of spirit, but by attributing all those operations, it finds in itself, to a sort of beings, without consideration of matter. And even the most advanced notion we have of God is but attributing the same simple ideas which we have got from reflection on what we find in ourselves, and which we conceive to have more perfection in them, than would be in their absence; attributing, I say, those simple ideas to him in an unlimited degree. Thus having got, from reflecting on ourselves, the idea of existence, knowledge, power, and pleasure, each of which we find it better to have than to want; and the more we have of each, the better: joining all these together, with infinity to each of them, we have the complex idea of an eternal, omniscient, omnipotent, infinitely wise and happy Being. And though we are told, that there are different species of angels; yet we know not how to frame distinct specific ideas of them; not out of any conceit that the existence of more species than one of spirits is impossible, but because having no more simple ideas (nor being able to frame more) applicable to such beings, but only those few taken from ourselves, and from the actions of our own minds in

thinking, and being delighted, and moving several parts of our bodies, we can no otherwise distinguish in our conceptions the several species of spirits one from another, but by attributing those operations and powers, we find in ourselves, to them in a higher or lower degree; and so have no very distinct specific ideas of spirits, except only of God, to whom we attribute both duration, and all those other ideas with infinity; to the other spirits, with limitation. Nor as I humbly conceive do we, between God and them in our ideas, put any difference by any number of simple ideas, which we have of one, and not of the other, but only that of infinity. All the particular ideas of existence, knowledge, will, power, and motion, &c. being ideas derived from the operations of our minds, we attribute all of them to all sorts of spirits, with the difference only of degrees, to the utmost we can imagine, even infinity, when we would frame, as well as we can, an idea of the first being; who yet, it is certain, is infinitely more remote, in the real excellency of his nature, from the highest and perfectest of all created beings, than the greatest man, nay purest seraph, is from the most contemptible part of matter; and consequently must infinitely exceed what our narrow understandings can conceive of him.

Whereof there are probably numberless species.

§. 12. It is not impossible to conceive, nor repugnant to reason, that there may be many species of spirits, as much separated and diversified one from another by distinct properties whereof we have no ideas, as the species of sensible things are distinguished one from another by qualities which we know, and observe in them. That there should be more species of intelligent creatures above us, than there are of sensible and material below us, is probable to me from hence; that in all the visible corporeal world, we see no chasms or gaps. All quite down from us the descent is by easy steps, and a continued series of things, that in each remove differ very little one from the other. There are fishes that have wings, and are not strangers to the airy region; and there are some birds that are inhabi-

tants of the water, whose blood is cold as fishes, and their flesh so like in taste, that the scrupulous are allowed them on fish-days. There are animals so near of kin both to birds and beasts, that they are in the middle between both: amphibious animals link the terrestrial and aquatic together; seals live at land and sea, and porpoises have the warm blood and entrails of a hog, not to mention what is confidently reported of mermaids or sea-men. There are some brutes, that seem to have as much knowledge and reason, as some that are called men; and the animal and vegetable kingdoms are so nearly joined, that if you will take the lowest of one, and the highest of the other, there will scarce be perceived any great difference between them; and so on, till we come to the lowest and the most inorganical parts of matter, we shall find every-where, that the several species are linked together, and differ but in almost insensible degrees. And when we consider the infinite power and wisdom of the Maker, we have reason to think, that it is suitable to the magnificent harmony of the universe, and the great design and infinite goodness of the architect, that the species of creatures should also, by gentle degrees, ascend upward from us toward his infinite perfection, as we see they gradually descend from us downwards: which if it be probable, we have reason then to be persuaded, that there are far more species of creatures above us, than there are beneath: we being, in degrees of perfection, much more remote from the infinite being of God, than we are from the lowest state of being, and that which approaches nearest to nothing. And yet of all those distinct species, for the reasons abovesaid, we have no clear distinct ideas.

The nominal essence that of the species, proved from water and ice.

§. 13. But to return to the species of corporeal substances. If I should ask any one, whether ice and water were two distinct species of things, I doubt not but I should be answered in the affirmative: and it cannot be denied, but he that says they are two distinct species is in the right. But if an Englishman, bred in Jamaica, who perhaps had never

seen nor heard of ice, coming into England in the winter, find the water, he put in his bason at night, in a great part frozen in the morning, and not knowing any peculiar name it had, should call it hardened water; I ask, whether this would be a new species to him different from water? And, I think, it would be answered here, it would not be to him a new species, no more than congealed jelly, when it is cold, is a distinct species from the same jelly fluid and warm; or than liquid gold, in the furnace, is a distinct species from hard gold in the hands of a workman. And if this be so, it is plain, that our distinct species are nothing but distinct complex ideas, with distinct names annexed to them. It is true, every substance that exists has its peculiar constitution, whereon depend those sensible qualities and powers we observe in it; but the ranking of things into species, which is nothing but sorting them under several titles, is done by us according to the ideas that we have of them: which though sufficient to distinguish them by names, so that we may be able to discourse of them, when we have them not present before us; yet if we suppose it to be done by their real internal constitutions, and that things existing are distinguished by nature into species, by real essences, according as we distinguish them into species by names, we shall be liable to great mistakes.

Difficulties against a certain number of real essences.

§. 14. To distinguish substantial beings into species, according to the usual supposition, that there are certain precise essences or forms of things, whereby all the individuals existing are by nature distinguished into species, these things are necessary.

§. 15. First, To be assured that nature, in the production of things, always designs them to partake of certain regulated established essences, which are to be the models of all things to be produced. This, in that crude sense it is usually proposed, would need some better explication before it can fully be assented to.

§. 16. Secondly, It would be necessary to know whether nature always attains that essence it designs in the production of things. The irregular and monstrous

births, that in divers sorts of animals have been observed, will always give us reason to doubt of one or both of these.

§. 17. Thirdly, It ought to be determined whether those we call monsters be really a distinct species, according to the scholastic notion of the word species; since it is certain, that every thing that exists has its particular constitution: and yet we find that some of these monstrous productions have few or none of those qualities, which are supposed to result from, and accompany the essence of that species, from whence they derive their originals, and to which, by their descent, they seem to belong.

Our nominal essences of substances not perfect collections of properties.

§. 18. Fourthly, The real essences of those things, which we distinguish into species, and as so distinguished we name, ought to be known; i. e. we ought to have ideas of them. But since we are ignorant in these four points, the supposed real essences of things stand us not in stead for the distinguishing substances into species.

§. 19. Fifthly, The only imaginable help in this case would be, that having framed perfect complex ideas of the properties of things, flowing from their different real essences, we should thereby distinguish them into species. But neither can this be done; for being ignorant of the real essence itself, it is impossible to know all those properties that flow from it, and are so annexed to it, that any one of them being away, we may certainly conclude, that that essence is not there, and so the thing is not of that species. We can never know what is the precise number of properties depending on the real essence of gold, any one of which failing, the real essence of gold, and consequently gold, would not be there, unless we knew the real essence of gold itself, and by that determined that species. By the word gold here, I must be understood to design a particular piece of matter; v. g. the last guinea that was coined. For if it should stand here in its ordinary signification for that complex idea, which I or any one else calls gold; i. e. for the nominal essence of gold, it

would be jargon: so hard is it to show the various meaning and imperfection of words, when we have nothing else but words to do it by.

§. 20. By all which it is clear, that our distinguishing substances into species by names, is not at all founded on their real essences; nor can we pretend to range and determine them exactly into species, according to internal essential differences.

§. 21. But since, as has been remarked, we have need of general words, though we know not the real essences of things; all we can do is to collect such a number of simple ideas, as by examination we find to be united together in things existing, and therefore to make one complex idea. Which though it be not the real essence of any substance that exists, is yet the specific essence, to which our name belongs, and is convertible with it; by which we may at least try the truth of these nominal essences. For example, there be that say, that the essence of body is extension: if it be so, we can never mistake in putting the essence of any thing for the thing itself. Let us then in discourse put extension for body; and when we would say that body moves, let us say that extension moves, and see how ill it would look. He that should say that one extension by impulse moves another extension, would, by the bare expression, sufficiently show the absurdity of such a notion. The essence of any thing, in respect of us, is the whole complex idea, comprehended and marked by that name; and in substances, besides the several distinct simple ideas that make them up, the confused one of substance, or of an unknown support and cause of their union, is always a part: and therefore the essence of body is not bare extension, but an extended solid thing: and so to say an extended solid thing moves, or impels another, is all one, and as intelligible as to say, body moves or impels. Likewise to say, that a rational animal is capable of conversation, is all one as to say a man. But no one will say, that rationality is capable of conversation, because it makes not the whole essence to which we give the name man.

But such a collection as our name stands for.

Our abstract ideas are to us the measures of species; instance in that of man.

§. 22. There are creatures in the world that have shapes like ours, but are hairy, and want language and reason. There are naturals amongst us that have perfectly our shape, but want reason, and some of them language too. There are creatures, as it is said ("sit fides penes authorem," but there appears no contradiction that there should be such) that, with language and reason, and a shape in other things agreeing with ours, have hairy tails; others where the males have no beards, and others where the females have. If it be asked, whether these be all men or no, all of human species? It is plain, the question refers only to the nominal essence: for those of them to whom the definition of the word man, or the complex idea signified by that name, agrees, are men; and the other not. But if the inquiry be made concerning the supposed real essence, and whether the internal constitution and frame of these several creatures be specifically different, it is wholly impossible for us to answer, no part of that going into our specific idea; only we have reason to think, that where the faculties or outward frame so much differs, the internal constitution is not exactly the same. But what difference in the internal real constitution makes a specific difference, it is in vain to inquire; whilst our measures of species be, as they are, only our abstract ideas, which we know; and not that internal constitution, which makes no part of them. Shall the difference of hair only on the skin, be a mark of a different internal specific constitution between a changeling and a drill, when they agree in shape, and want of reason and speech? And shall not the want of reason and speech be a sign to us of different real constitutions and species between a changeling and a reasonable man? And so of the rest, if we pretend that distinction of species or sorts is fixedly established by the real frame and secret constitutions of things.

Species not distinguished by generation.

§. 23. Nor let any one say, that the power of propagation in animals by the mixture of male and female, and in plants by seeds,

keeps the supposed real species distinct and entire. For granting this to be true, it would help us in the distinction of the species of things no farther than the tribes of animals and vegetables. What must we do for the rest? But in those too it is not sufficient: for if history lye not, women have conceived by drills; and what real species, by that measure, such a production will be in nature, will be a new question: and we have reason to think this is not impossible, since mules and jumarts, the one from the mixture of an ass and a mare, the other from the mixture of a bull and a mare, are so frequent in the world. I once saw a creature that was the issue of a cat and a rat, and had the plain marks of both about it; wherein nature appeared to have followed the pattern of neither sort alone, but to have jumbled them together. To which, he that shall add the monstrous productions that are so frequently to be met with in nature, will find it hard, even in the race of animals, to determine by the pedigree of what species every animal's issue is; and be at a loss about the real essence, which he thinks certainly conveyed by generation, and has alone a right to the specific name. But farther, if the species of animals and plants are to be distinguished only by propagation, must I go to the Indies to see the sire and dam of the one, and the plant from which the seed was gathered that produced the other, to know whether this be a tyger or that tea?

§. 24. Upon the whole matter, it is evident, that it is their own collections of sensible qualities, that men make the essences of their several sorts of substances; and that their real internal structures are not considered by the greatest part of men, in the sorting them. Much less were any substantial forms ever thought on by any, but those who have in this one part of the world learned the language of the schools: and yet those ignorant men, who pretend not any insight into the real essences, nor trouble themselves about substantial forms, but are content with knowing things one from another by their sensible qualities,

Not by substantial forms.

are often better acquainted with their differences, can more nicely distinguish them from their uses, and better know what they expect from each, than those learned quick-sighted men, who look so deep into them, and talk so confidently of something more hidden and essential.

The specific essences are made by the mind.

§. 25. But supposing that the real essences of substances were discoverable by those that would severely apply themselves to that inquiry, yet we could not reasonably think, that the ranking of things under general names was regulated by those internal real constitutions, or any thing else but their obvious appearances: since languages, in all countries, have been established long before sciences. So that they have not been philosophers, or logicians, or such who have troubled themselves about forms and essences, that have made the general names that are in use amongst the several nations of men; but those more or less comprehensive terms have for the most part, in all languages, received their birth and signification from ignorant and illiterate people, who sorted and denominated things by those sensible qualities they found in them; thereby to signify them, when absent, to others, whether they had an occasion to mention a sort or a particular thing.

Therefore very various and uncertain.

§. 26. Since then it is evident, that we sort and name substances by their nominal, and not by their real essences; the next thing to be considered is, how and by whom these essences come to be made. As to the latter, it is evident they are made by the mind, and not by nature: for were they nature's workmanship, they could not be so various and different in several men, as experience tells us they are. For if we will examine it, we shall not find the nominal essence of any one species of substances in all men the same; no not of that, which of all others we are the most intimately acquainted with. It could not possibly be, that the abstract idea to which the name man is given, should be different in several men, if it were of nature's making;

and that to one it should be "animal rationale," and to another, "animal implume bipes latis unguibus." He that annexes the name man to a complex idea made up of sense and spontaneous motion, joined to a body of such a shape, has thereby one essence of the species man; and he that, upon farther examination, adds rationality, has another essence of the species he calls man: by which means, the same individual will be a true man to the one, which is not so to the other. I think, there is scarce any one will allow this upright figure, so well known, to be the essential difference of the species man; and yet how far men determine of the sorts of animals rather by their shape than descent, is very visible: since it has been more than once debated, whether several human fœtuses should be preserved or received to baptism or no, only because of the difference of their outward configuration from the ordinary make of children, without knowing whether they were not as capable of reason, as infants cast in another mould: some whereof, though of an approved shape, are never capable of as much appearance of reason all their lives, as is to be found in an ape, or an elephant, and never give any signs of being acted by a rational soul. Whereby it is evident, that the outward figure, which only was found wanting, and not the faculty of reason, which nobody could know would be wanting in its due season, was made essential to the human species. The learned divine and lawyer must, on such occasions, renounce his sacred definition of "animal rationale," and substitute some other essence of the human species. Monsieur Menage furnishes us with an example worth the taking notice of on this occasion: "When the "abbot of St. Martin (says he) was born, he had so "little of the figure of a man, that it bespake him "rather a monster. It was for some time under de- "liberation, whether he should be baptized or no. "However, he was baptized and declared a man pro- "visionally [till time should show what he would "prove.] Nature had moulded him so untowardly, "that he was called all his life the Abbot Malotru, "i. e. ill-shaped. He was of Caen. Menagiana, $\frac{278}{436}$."

This child, we see, was very near being excluded out of the species of man, barely by his shape. He escaped very narrowly as he was, and it is certain a figure a little more oddly turned had cast him, and he had been executed as a thing not to be allowed to pass for a man. And yet there can be no reason given, why if the lineaments of his face had been a little altered, a rational soul could not have been lodged in him: why a visage somewhat longer, or a nose flatter, or a wider mouth, could not have consisted, as well as the rest of his ill figure, with such a soul, such parts, as made him, disfigured as he was, capable to be a dignitary in the church.

§. 27. Wherein then, would I gladly know, consist the precise and unmoveable boundaries of that species? It is plain, if we examine, there is no such thing made by nature, and established by her amongst men. The real essence of that, or any other sort of substances, it is evident we know not; and therefore are so undetermined in our nominal essences, which we make ourselves, that if several men were to be asked concerning some oddly-shaped fœtus, as soon as born, whether it were a man or no, it is past doubt, one should meet with different answers. Which could not happen, if the nominal essences, whereby we limit and distinguish the species of substances, were not made by man, with some liberty; but were exactly copied from precise boundaries set by nature, whereby it distinguished all substances into certain species. Who would undertake to resolve, what species that monster was of, which is mentioned by Licetus, lib. i. c. 3. with a man's head and hog's body? Or those other, which to the bodies of men had the heads of beasts, as dogs, horses, &c. If any of these creatures had lived, and could have spoke, it would have increased the difficulty. Had the upper part, to the middle, been of human shape, and all below swine; had it been murder to destroy it? Or must the bishop have been consulted, whether it were man enough to be admitted to the font or no? as, I have been told, it happened in France some years since, in somewhat a like case. So uncertain are the

boundaries of species of animals to us, who have no other measures than the complex ideas of our own collecting; and so far are we from certainly knowing what a man is; though, perhaps it will be judged great ignorance to make any doubt about it. And yet, I think, I may say, that the certain boundaries of that species are so far from being determined, and the precise number of simple ideas, which make the nominal essence, so far from being settled and perfectly known, that very material doubts may still arise about it. And I imagine, none of the definitions of the word man, which we yet have, nor descriptions of that sort of animal, are so perfect and exact, as to satisfy a considerate inquisitive person; much less to obtain a general consent, and to be that which men would every-where stick by, in the decision of cases, and determining of life and death, baptism or no baptism, in productions that might happen.

But not so arbitrary as mixed modes.

§. 28. But though these nominal essences of substances are made by the mind, they are not yet made so arbitrarily as those of mixed modes. To the making of any nominal essence, it is necessary, First, that the ideas whereof it consists have such an union as to make but one idea, how compounded soever. Secondly, that the particular idea so united be exactly the same, neither more nor less. For if two abstract complex ideas differ either in number or sorts of their component parts, they make two different, and not one and the same essence. In the first of these, the mind, in making its complex ideas of substances, only follows nature; and puts none together, which are not supposed to have an union in nature. Nobody joins the voice of a sheep with the shape of a horse; nor the colour of lead, with the weight and fixedness of gold; to be the complex ideas of any real substances: unless he has a mind to fill his head with chimeras, and his discourse with unintelligible words. Men observing certain qualities always joined and existing together, therein copied nature; and of ideas so united, made their complex ones of substances. For though men may make what complex

ideas they please, and give what names to them they will; yet if they will be understood, when they speak of things really existing, they must in some degree conform their ideas to the things they would speak of: or else men's language will be like that of Babel; and every man's words being intelligible only to himself, would no longer serve to conversation, and the ordinary affairs of life, if the ideas they stand for be not some way answering the common appearances and agreement of substances, as they really exist.

Though very imperfect.

§. 29. Secondly, though the mind of man, in making its complex ideas of substances, never puts any together that do not really or are not supposed to co-exist; and so it truly borrows that union from nature: yet the number it combines depends upon the various care, industry, or fancy of him that makes it. Men generally content themselves with some few sensible obvious qualities; and often, if not always, leave out others as material, and as firmly united, as those that they take. Of sensible substances there are two sorts; one of organized bodies, which are propagated by seed; and in these, the shape is that, which to us is the leading quality and most characteristical part that determines the species. And therefore in vegetables and animals, an extended solid substance of such a certain figure usually serves the turn. For however some men seem to prize their definition of "animal rationale," yet should there a creature be found, that had language and reason, but partook not of the usual shape of a man, I believe it would hardly pass for a man, how much soever it were "animal rationale." And if Balaam's ass had, all his life, discoursed as rationally as he did once with his master, I doubt yet whether any one would have thought him worthy the name man, or allowed him to be of the same species with himself. As in vegetables and animals it is the shape, so in most other bodies, not propagated by seed, it is the colour we most fix on, and are most led by. Thus where we find the colour of gold, we are apt to imagine all the other qualities,

comprehended in our complex idea, to be there also: and we commonly take these two obvious qualities, viz. shape and colour, for so presumptive ideas of several species, that in a good picture we readily say this is a lion, and that a rose; this is a gold, and that a silver goblet, only by the different figures and colours represented to the eye by the pencil.

§. 30. But though this serves well enough for gross and confused conceptions, and inaccurate ways of talking and thinking; yet men are far enough from having agreed on the precise number of simple ideas, or qualities, belonging to any sort of things, signified by its name. Nor is it a wonder, since it requires much time, pains, and skill, strict inquiry, and long examination, to find out what and how many those simple ideas are, which are constantly and inseparably united in nature, and are always to be found together in the same subject. Most men wanting either time, inclination, or industry enough for this, even to some tolerable degree, content themselves with some few obvious and outward appearances of things, thereby readily to distinguish and sort them for the common affairs of life: and so, without farther examination, give them names, or take up the names already in use. Which, though in common conversation they pass well enough for the signs of some few obvious qualities co-existing, are yet far enough from comprehending, in a settled signification, a precise number of simple ideas; much less all those which are united in nature. He that shall consider, after so much stir about genus and species, and such a deal of talk of specific differences, how few words we have yet settled definitions of; may with reason imagine that those forms, which there hath been so much noise made about, are only chimeras, which give us no light into the specific natures of things. And he that shall consider, how far the names of substances are from having significations, wherein all who use them do agree, will have reason to conclude, that though the nominal essences of substances are all sup-

Which yet serve for common converse.

posed to be copied from nature, yet they are all, or most of them, very imperfect. Since the composition of those complex ideas are, in several men, very different; and therefore that these boundaries of species are as men, and not as nature makes them, if at least there are in nature any such prefixed bounds. It is true, that many particular substances are so made by nature, that they have agreement and likeness one with another, and so afford a foundation of being ranked into sorts. But the sorting of things by us, or the making of determinate species, being in order to naming and comprehending them under general terms; I cannot see how it can be properly said, that nature sets the boundaries of the species of things: or if it be so, our boundaries of species are not exactly conformable to those in nature. For we having need of general names for present use, stay not for a perfect discovery of all those qualities which would best show us their most material differences and agreements; but we ourselves divide them, by certain obvious appearances, into species, that we may the easier under general names communicate our thoughts about them. For having no other knowledge of any substance, but of the simple ideas that are united in it; and observing several particular things to agree with others in several of those simple ideas; we make that collection our specific idea, and give it a general name; that in recording our thoughts, and in our discourse with others, we may in one short word design all the individuals that agree in that complex idea, without enumerating the simple ideas that make it up; and so not waste our time and breath in tedious descriptions: which we see they are fain to do, who would discourse of any new sort of things they have not yet a name for.

Essences of species under the same name very different.

§. 31. But however these species of substances pass well enough in ordinary conversation, it is plain that this complex idea, wherein they observe several individuals to agree, is by different men made very differently; by some more, and others less accurately. In some, this complex idea contains a greater, and in

others a smaller number of qualities; and so is apparently such as the mind makes it. The yellow shining colour makes gold to children; others add weight, malleableness, and fusibility; and others yet other qualities, which they find joined with that yellow colour, as constantly as its weight and fusibility: for in all these and the like qualities, one has as good a right to be put into the complex idea of that substance wherein they are all joined as another. And therefore different men leaving out or putting in several simple ideas, which others do not, according to their various examination, skill, or observation of that subject, have different essences of gold: which must therefore be of their own, and not of nature's making.

The more general our ideas are, the more incomplete and partial they are.

§. 32. If the number of simple ideas, that make the nominal essence of the lowest species, or first sorting of individuals, depends on the mind of man variously collecting them, it is much more evident that they do so, in the more comprehensive classes, which by the masters of logic are called genera. These are complex ideas designedly imperfect: and it is visible at first sight, that several of those qualities that are to be found in the things themselves, are purposely left out of generical ideas. For as the mind, to make general ideas comprehending several particulars, leaves out those of time, and place, and such other, that make them incommunicable to more than one individual; so to make other yet more general ideas, that may comprehend different sorts, it leaves out those qualities that distinguish them, and puts into its new collection only such ideas as are common to several sorts. The same convenience that made men express several parcels of yellow matter coming from Guinea and Peru under one name, sets them also upon making of one name that may comprehend both gold and silver, and some other bodies of different sorts. This is done by leaving out those qualities, which are peculiar to each sort; and retaining a complex idea made up of those that are common to them all; to which the name metal being annexed, there is a genus

constituted; the essence whereof being that abstract idea, containing only malleableness and fusibility, with certain degrees of weight and fixedness, wherein some bodies of several kinds agree, leaves out the colour, and other qualities peculiar to gold and silver, and the other sorts comprehended under the name metal. Whereby it is plain, that men follow not exactly the patterns set them by nature, when they make their general ideas of substances; since there is no body to be found, which has barely malleableness and fusibility in it, without other qualities as inseparable as those. But men, in making their general ideas, seeing more the convenience of language and quick dispatch, by short and comprehensive signs, than the true and precise nature of things as they exist, have, in the framing their abstract ideas, chiefly pursued that end, which was to be furnished with store of general and variously comprehensive names. So that in this whole business of genera and species, the genus, or more comprehensive, is but a partial conception of what is in the species, and the species but a partial idea of what is to be found in each individual. If therefore any one will think, that a man, and a horse, and an animal, and a plant, &c. are distinguished by real essences made by nature, he must think nature to be very liberal of these real essences, making one for body, another for an animal, and another for a horse; and all these essences liberally bestowed upon Bucephalus. But if we would rightly consider what is done in all these genera and species, or sorts, we should find, that there is no new thing made, but only more or less comprehensive signs, whereby we may be enabled to express, in a few syllables, great numbers of particular things, as they agree in more or less general conceptions, which we have framed to that purpose. In all which we may observe, that the more general term is always the name of a less complex idea; and that each genus is but a partial conception of the species comprehended under it. So that if these abstract general ideas be thought to be

complete, it can only be in respect of a certain established relation between them and certain names, which are made use of to signify them; and not in respect of any thing existing, as made by nature.

§. 33. This is adjusted to the true end of speech, which is to be the easiest and shortest way of communicating our notions. For thus he, that would discourse of things as they agreed in the complex ideas of extension and solidity, needed but use the word body, to denote all such. He that to these would join others, signified by the words life, sense, and spontaneous motion, needed but use the word animal, to signify all which partook of those ideas: and he that had made a complex idea of a body, with life, sense, and motion, with the faculty of reasoning, and a certain shape joined to it, needed but use the short monosyllable man to express all particulars that correspond to that complex idea. This is the proper business of genus and species: and this men do, without any consideration of real essences, or substantial forms, which come not within the reach of our knowledge, when we think of those things; nor within the signification of our words, when we discourse with others. This all accommodated to the end of speech.

§. 34. Were I to talk with any one of a sort of birds I lately saw in St. James's Park, about three or four feet high, with a covering of something between feathers and hair, of a dark brown colour, without wings, but in the place thereof two or three little branches coming down like sprigs of Spanish broom, long great legs, with feet only of three claws, and without a tail; I must make this description of it, and so may make others understand me: but when I am told that the name of it is cassuaris, I may then use that word to stand in discourse for all my complex idea mentioned in that description; though by that word, which is now become a specific name, I know no more of the real essence or constitution of that sort of animals than I did before; Instance in cassuaries.

and knew probably as much of the nature of that species of birds, before I learned the name, as many Englishmen do of swans, or herons, which are specific names, very well known, of sorts of birds common in England.

Men determine the sorts.

§. 35. From what has been said, it is evident, that men make sorts of things. For it being different essences alone that make different species, it is plain that they who make those abstract ideas, which are the nominal essences, do thereby make the species, or sort. Should there be a body found, having all the other qualities of gold, except malleableness, it would no doubt be made a question whether it were gold or no, i. e. whether it were of that species. This could be determined only by that abstract idea, to which every one annexed the name gold; so that it would be true gold to him, and belong to that species, who included not a malleableness in his nominal essence, signified by the sound gold; and on the other side, it would not be true gold, or of that species, to him who included malleableness in his specific idea. And who, I pray, is it that makes these diverse species even under one and the same name, but men that make two different abstract ideas consisting not exactly of the same collection of qualities? Nor is it a mere supposition to imagine that a body may exist, wherein the other obvious qualities of gold may be without malleableness; since it is certain, that gold itself will be sometimes so eager (as artists call it) that it will as little endure the hammer as glass itself. What we have said of the putting in, or leaving malleableness out of the complex idea the name gold is by any one annexed to, may be said of its peculiar weight, fixedness, and several other the like qualities: for whatsoever is left out, or put in, it is still the complex idea, to which that name is annexed, that makes the species; and as any particular parcel of matter answers that idea, so the name of the sort belongs truly to it; and it is of that species. And thus any thing is true gold, perfect

metal. All which determination of the species, it is plain, depends on the understanding of man, making this or that complex idea.

Nature makes the similitude.

§. 36. This then, in short, is the case; nature makes many particular things which do agree one with another, in many sensible qualities, and probably too in their internal frame and constitution: but it is not this real essence that distinguishes them into species; it is men, who, taking occasion from the qualities they find united in them, and wherein they observe often several individuals to agree, range them into sorts, in order to their naming, for the convenience of comprehensive signs; under which individuals, according to their conformity to this or that abstract idea, come to be ranked as under ensigns; so that this is of the blue, that the red regiment; this is a man, that a drill: and in this, I think, consists the whole business of genus and species.

§. 37. I do not deny but nature, in the constant production of particular beings, makes them not always new and various, but very much alike and of kin one to another: but I think it nevertheless true, that the boundaries of the species whereby men sort them, are made by men; since the essences of the species, distinguished by different names, are, as has been proved, of man's making, and seldom adequate to the internal nature of the things they are taken from. So that we may truly say, such a manner of sorting of things is the workmanship of men.

Each abstract idea is an essence.

§. 38. One thing I doubt not but will seem very strange in this doctrine; which is, that from what has been said it will follow, that each abstract idea, with a name to it, makes a distinct species. But who can help it if truth will have it so? For so it must remain till some body can show us the species of things limited and distinguished by something else; and let us see, that general terms signify not our abstract ideas, but something different from them. I would fain know why a

shock and a hound are not as distinct species as a spaniel and an elephant. We have no other idea of the different essence of an elephant and a spaniel, than we have of the different essence of a shock and a hound; all the essential difference, whereby we know and distinguish them one from another, consisting only in the different collection of simple ideas, to which we have given those different names.

Genera and species are in order to naming.

§. 39. How much the making of species and genera is in order to general names, and how much general names are necessary, if not to the being, yet at least to the completing of a species, and making it pass for such, will appear, besides what has been said above concerning ice and water, in a very familiar example. A silent and a striking watch are but one species to those who have but one name for them: but he that has the name watch for one, and clock for the other, and distinct complex ideas, to which those names belong, to him they are different species. It will be said perhaps that the inward contrivance and constitution is different between these two, which the watch-maker has a clear idea of. And yet, it is plain, they are but one species to him, when he has but one name for them. For what is sufficient in the inward contrivance to make a new species? There are some watches that are made with four wheels, others with five: is this a specific difference to the workman? Some have strings and physies, and others none; some have the balance loose, and others regulated by a spiral spring, and others by hogs bristles: are any or all of these enough to make a specific difference to the workman, that knows each of these, and several other different contrivances in the internal constitutions of watches? It is certain each of these hath a real difference from the rest: but whether it be an essential, a specific difference or no, relates only to the complex idea to which the name watch is given: as long as they all agree in the idea which that name stands for, and that name does not as a generical name comprehend different species

under it, they are not essentially nor specifically different. But if any one will make minuter divisions from differences that he knows in the internal frame of watches, and to such precise complex ideas give names that shall prevail: they will then be new species to them who have those ideas with names to them, and can, by those differences, distinguish watches into these several sorts, and then watch will be a generical name. But yet they would be no distinct species to men ignorant of clock-work and the inward contrivances of watches, who had no other idea but the outward shape and bulk, with the marking of the hours by the hand. For to them all those other names would be but synonymous terms for the same idea, and signify no more, nor no other thing but a watch. Just thus, I think, it is in natural things. Nobody will doubt that the wheels or springs (if I may so say) within, are different in a rational man and a changeling, no more than that there is a difference in the frame between a drill and a changeling. But whether one, or both the differences be essential or specifical, is only to be known to us, by their agreement or disagreement with the complex idea that the name man stands for: for by that alone can it be determined, whether one, or both, or neither of those be a man or no.

Species of artificial things less confused than natural.

§. 40. From what has been before said, we may see the reason why, in the species of artificial things, there is generally less confusion and uncertainty, than in natural. Because an artificial thing being a production of man, which the artificer designed, and therefore well knows the idea of, the name of it is supposed to stand for no other idea, nor to import any other essence than what is certainly to be known, and easy enough to be apprehended. For the idea or essence of the several sorts of artificial things consisting, for the most part, in nothing but the determinate figure of sensible parts; and sometimes motion depending thereon, which the artificer fashions in matter, such as he finds for his turn; it is not beyond the reach of our faculties to attain a certain idea thereof, and to settle the signification of

the names whereby the species of artificial things are distinguished with less doubt, obscurity, and equivocation, than we can in things natural, whose differences and operations depend upon contrivances beyond the reach of our discoveries.

Artificial things of distinct species.

§. 41. I must be excused here if I think artificial things are of distinct species as well as natural: since I find they are as plainly and orderly ranked into sorts, by different abstract ideas, with general names annexed to them, as distinct one from another as those of natural substances. For why should we not think a watch and pistol, as distinct species one from another, as a horse and a dog, they being expressed in our minds by distinct ideas, and to others by distinct appellations?

Substances alone have proper names.

§. 42. This is farther to be observed concerning substances, that they alone of all our several sorts of ideas have particular or proper names, whereby one only particular thing is signified. Because in simple ideas, modes, and relations, it seldom happens that men have occasion to mention often this or that particular when it is absent. Besides, the greatest part of mixed modes, being actions which perish in their birth, are not capable of a lasting duration as substances, which are the actors: and wherein the simple ideas that make up the complex ideas designed by the name, have a lasting union.

Difficulty to treat of words.

§. 43. I must beg pardon of my reader, for having dwelt so long upon this subject, and perhaps with some obscurity. But I desire it may be considered how difficult it is to lead another by words into the thoughts of things, stripped of those specifical differences we give them: which things, if I name not, I say nothing; and if I do name them, I thereby rank them into some sort or other, and suggest to the mind the usual abstract idea of that species; and so cross my purpose. For to talk of a man, and to lay by, at the same time, the ordinary signification of the name man, which is

our complex idea usually annexed to it; and bid the reader consider man as he is in himself, and as he is really distinguished from others in his internal constitution, or real essence; that is, by something he knows not what; looks like trifling: and yet thus one must do who would speak of the supposed real essences and species of things, as thought to be made by nature, if it be but only to make it understood, that there is no such thing signified by the general names, which substances are called by. But because it is difficult by known familiar names to do this, give me leave to endeavour by an example to make the different consideration the mind has of specific names and ideas a little more clear, and to show how the complex ideas of modes are referred sometimes to archetypes in the minds of other intelligent beings; or, which is the same, to the signification annexed by others to their received names; and sometimes to no archetypes at all. Give me leave also to show how the mind always refers its ideas of substances, either to the substances themselves, or to the signification of their names as to the archetypes; and also to make plain the nature of species, or sorting of things, as apprehended, and made use of by us; and of the essences belonging to those species, which is perhaps of more moment, to discover the extent and certainty of our knowledge, than we at first imagine.

Instances of mixed modes in kinneah and niouph.

§. 44. Let us suppose Adam in the state of a grown man, with a good understanding, but in a strange country, with all things new and unknown about him; and no other faculties to attain the knowledge of them, but what one of this age has now. He observes Lamech more melancholy than usual, and imagines it to be from a suspicion he has of his wife Adah (whom he most ardently loved), that she had too much kindness for another man. Adam discourses these his thoughts to Eve, and desires her to take care that Adah commit not folly: and in these discourses with Eve he makes use of these two new words, kinneah and niouph. In time

Adam's mistake appears, for he finds Lamech's trouble proceeded from having killed a man: but yet the two names kinneah and niouph (the one standing for suspicion, in a husband, of his wife's disloyalty to him, and the other for the act of committing disloyalty) lost not their distinct significations. It is plain then that here were two distinct complex ideas of mixed modes with names to them, two distinct species of actions essentially different; I ask wherein consisted the essences of these two distinct species of actions? And it is plain it consisted in a precise combination of simple ideas, different in one from the other. I ask, Whether the complex idea in Adam's mind, which he called kinneah, were adequate or no? And it is plain it was; for it being a combination of simple ideas, which he, without any regard to any archetype, without respect to any thing as a pattern, voluntarily put together, abstracted and gave the name kinneah to, to express in short to others, by that one sound, all the simple ideas contained and united in that complex one; it must necessarily follow, that it was an adequate idea. His own choice having made that combination, it had all in it he intended it should, and so could not but be perfect, could not but be adequate, it being referred to no other archetype which it was supposed to represent.

§. 45. These words, kinneah and niouph, by degrees grew into common use; and then the case was somewhat altered. Adam's children had the same faculties, and thereby the same power that he had to make what complex ideas of mixed modes they pleased in their own minds; to abstract them, and make what sounds they pleased the signs of them: but the use of names being to make our ideas within us known to others, that cannot be done, but when the same sign stands for the same idea in two who would communicate their thoughts and discourse together. Those therefore of Adam's children, that found these two words, kinneah and niouph, in familiar use, could not take them for insignificant sounds; but must needs

conclude, they stood for something, for certain ideas, abstract ideas, they being general names, which abstract ideas were the essences of the species distinguished by those names. If therefore they would use these words, as names of species already established and agreed on, they were obliged to conform the ideas in their minds, signified by these names, to the ideas that they stood for in other men's minds, as to their patterns and archetypes; and then indeed their ideas of these complex modes were liable to be inadequate, as being very apt (especially those that consisted of combinations of many simple ideas) not to be exactly conformable to the ideas in other men's minds, using the same names; though for this there be usually a remedy at hand, which is to ask the meaning of any word we understand not, of him that uses it: it being as impossible to know certainly what the words jealousy and adultery (which I think answer קנאה and נאוף) stand for in another man's mind, with whom I would discourse about them, as it was impossible, in the beginning of language, to know what kinneah and niouph stood for in another man's mind, without explication, they being voluntary signs in every one.

§. 46. Let us now also consider, after the same manner, the names of substances in their first application. One of Adam's children, roving in the mountains, lights on a glittering substance which pleases his eye; home he carries it to Adam, who upon consideration of it, finds it to be hard, to have a bright yellow colour, and an exceeding great weight. These, perhaps, at first, are all the qualities he takes notice of in it; and abstracting this complex idea, consisting of a substance having that peculiar bright yellowness, and a weight very great in proportion to its bulk, he gives it the name zahab, to denominate and mark all substances that have these sensible qualities in them. It is evident now that, in this case, Adam acts quite differently from what he did before in forming those ideas of mixed modes, to which he gave the names kinneah

Instance of substances in zahab.

and niouph. For there he puts ideas together, only by his own imagination, not taken from the existence of any thing; and to them he gave names to denominate all things that should happen to agree to those his abstract ideas, without considering whether any such thing did exist or no; the standard there was of his own making. But in the forming his idea of this new substance, he takes the quite contrary course; here he has a standard made by nature; and therefore being to represent that to himself, by the idea he has of it, even when it is absent, he puts in no simple idea into his complex one, but what he has the perception of from the thing itself. He takes care that his idea be conformable to this archetype, and intends the name should stand for an idea so conformable.

§. 47. This piece of matter, thus denominated zahab by Adam, being quite different from any he had seen before, nobody, I think, will deny to be a distinct species, and to have its peculiar essence; and that the name zahab is the mark of the species, and a name belonging to all things partaking in that essence. But here it is plain, the essence, Adam made the name zahab stand for, was nothing but a body hard, shining, yellow, and very heavy. But the inquisitive mind of man, not content with the knowledge of these, as I may say, superficial qualities, puts Adam on farther examination of this matter. He therefore knocks and beats it with flints, to see what was discoverable in the inside: he finds it yield to blows, but not easily separate into pieces: he finds it will bend without breaking. Is not now ductility to be added to his former idea, and made part of the essence of the species that name zahab stands for? Farther trials discover fusibility and fixedness. Are not they also, by the same reason that any of the others were, to be put into the complex idea signified by the name zahab? If not, what reason will there be shown more for the one than the other? If these must, then all the other properties, which any farther trials shall discover in this matter, ought by the same reason to make a part of the ingre-

dients of the complex idea which the name zahab stands for, and so be the essence of the species marked by that name. Which properties, because they are endless, it is plain, that the idea made after this fashion by this archetype, will be always inadequate.

Their ideas imperfect, and therefore various.

§. 48. But this is not all, it would also follow, that the names of substances would not only have (as in truth they have) but would also be supposed to have, different significations, as used by different men, which would very much cumber the use of language. For if every distinct quality, that were discovered in any matter by any one, were supposed to make a necessary part of the complex idea, signified by the common name given it, it must follow, that men must suppose the same word to signify different things in different men; since they cannot doubt but different men may have discovered several qualities in substances of the same denomination, which others know nothing of.

Therefore to fix their species, a real essence is supposed.

§. 49. To avoid this, therefore, they have supposed a real essence belonging to every species, from which these properties all flow, and would have their name of the species stand for that. But they not having any idea of that real essence in substances, and their words signifying nothing but the ideas they have; that which is done by this attempt, is only to put the name or sound in the place and stead of the thing having that real essence, without knowing what the real essence is: and this is that which men do, when they speak of species of things, as supposing them made by nature, and distinguished by real essences.

Which supposition is of no use.

§. 50. For let us consider, when we affirm, that all gold is fixed, either it means that fixedness is a part of the definition, part of the nominal essence the word gold stands for; and so this affirmation, all gold is fixed, contains nothing but the signification of the term gold. Or, else it means, that fixedness, not being a part of

the definition of the gold, is a property of that substance itself: in which case, it is plain, that the word gold stands in the place of a substance, having the real essence of a species of things made by nature. In which way of substitution it has so confused and uncertain a signification, that though this proposition, gold is fixed, be in that sense an affirmation of something real, yet it is a truth will always fail us in its particular application, and so is of no real use nor certainty. For let it be ever so true, that all gold, i. e. all that has the real essence of gold, is fixed, what serves this for, whilst we know not in this sense what is or is not gold? For if we know not the real essence of gold, it is impossible we should know what parcel of matter has that essence, and so whether it be true gold or no.

Conclusion.

§. 51. To conclude: what liberty Adam had at first to make any complex ideas of mixed modes, by no other patterns but his own thought, the same have all men ever since had. And the same necessity of conforming his ideas of substances to things without him, as to archetypes made by nature, that Adam was under, if he would not wilfully impose upon himself; the same are all men ever since under too. The same liberty also that Adam had of affixing any new name to any idea, the same has any one still (especially the beginners of languages, if we can imagine any such), but only with this difference, that in places where men in society have already established a language amongst them, the significations of words are very warily and sparingly to be altered: because men being furnished already with names for their ideas, and common use having appropriated known names to certain ideas, an affected misapplication of them cannot but be very ridiculous. He that hath new notions, will, perhaps, venture sometimes on the coining of new terms to express them; but men think it a boldness, and it is uncertain whether common use will ever make them pass for current. But in communication with others, it is ne-

cessary, that we conform the ideas we make the vulgar words of any language stand for to their known proper significations (which I have explained at large already) or else to make known that new signification we apply them to.

CHAP. VII.

Of Particles.

§. 1. BESIDES words which are names of ideas in the mind, there are a great many others that are made use of, to signify the connexion that the mind gives to ideas, or propositions, one with another. The mind, in communicating its thoughts to others, does not only need signs of the ideas it has then before it, but others also, to show or intimate some particular action of its own, at that time, relating to those ideas. This it does several ways; as is, and is not, are the general marks of the mind, affirming or denying. But besides affirmation or negation, without which there is in words no truth or falsehood, the mind does, in declaring its sentiments to others, connect not only the parts of propositions, but whole sentences one to another, with their several relations and dependencies, to make a coherent discourse.

Particles connect parts, or whole sentences together.

§. 2. The words, whereby it signifies what connexion it gives to the several affirmations and negations, that it unites in one continued reasoning or narration, are generally called particles; and it is in the right use of these, that more particularly consists the clearness and beauty of a good style. To think well, it is not enough that a man has ideas clear and distinct in his thoughts, nor that he observes the agreement or disagreement of some of them; but he must think in train, and observe the

In them consists the art of well-speaking.

dependence of his thoughts and reasonings upon one another. And to express well such methodical and rational thoughts, he must have words to show what connexion, restriction, distinction, opposition, emphasis, &c. he gives to each respective part of his discourse. To mistake in any of these, is to puzzle, instead of informing his hearer; and therefore it is that those words which are not truly by themselves the names of any ideas, are of such constant and indispensable use in language, and do much contribute to men's well expressing themselves.

They show what relation the mind gives to its own thoughts.

§. 3. This part of grammar has been perhaps as much neglected, as some others over-diligently cultivated. It is easy for men to write, one after another, of cases and genders, moods and tenses, gerunds and supines: in these, and the like, there has been great diligence used; and particles themselves, in some languages, have been, with great show of exactness, ranked into their several orders. But though prepositions and conjunctions, &c. are names well known in grammar, and the particles contained under them carefully ranked into their distinct subdivisions; yet he who would show the right use of particles, and what significancy and force they have, must take a little more pains, enter into his own thoughts, and observe nicely the several postures of his mind in discoursing.

§. 4. Neither is it enough, for the explaining of these words, to render them, as is usual in dictionaries, by words of another tongue which come nearest to their signification; for what is meant by them is commonly as hard to be understood in one, as another language. They are all marks of some action, or intimation of the mind; and therefore to understand them rightly, the several views, postures, stands, turns, limitations, and exceptions, and several other thoughts of the mind, for which we have either none, or very deficient names, are diligently to be studied. Of these there is a great variety, much exceeding the number of particles that most languages have to express them by; and therefore it is

not to be wondered that most of these particles have divers, and sometimes almost opposite significations. In the Hebrew tongue there is a particle consisting of but one single letter, of which there are reckoned up, as I remember, seventy, I am sure above fifty several significations.

§. 5. But is a particle, none more familiar in our language; and he that says it is a discretive conjunction, and that it answers *sed* in Latin, or *mais* in French, thinks he has sufficiently explained it. But it seems to me to intimate several relations the mind gives to the several propositions or parts of them, which it joins by this monosyllable. Instance in But.

First, "but to say no more:" here it intimates a stop of the mind in the course it was going, before it came quite to the end of it.

Secondly, "I saw but two plants:" here it shows, that the mind limits the sense to what is expressed, with a negation of all other.

Thirdly, "you pray; but it is not that God would bring you to the true religion."

Fourthly, "but that he would confirm you in your own." The first of these Buts intimates a supposition in the mind of something otherwise than it should be; the latter shows, that the mind makes a direct opposition between that, and what goes before it.

Fifthly, "all animals have sense; but a dog is an animal:" here it signifies little more, but that the latter proposition is joined to the former, as the minor of a syllogism.

§. 6. To these, I doubt not, might be added a great many other significations of this particle, if it were my business to examine it in its full latitude, and consider it in all the places it is to be found: which if one should do, I doubt, whether in all those manners it is made use of, it would deserve the title of discretive, which grammarians give to it. But I intend not here a full explication of this sort of signs. The instances I have This matter but lightly touched here.

given in this one, may give occasion to reflect on their use and force in language, and lead us into the contemplation of several actions of our minds in discoursing, which it has found a way to intimate to others by these particles; some whereof constantly, and others in certain constructions, have the sense of a whole sentence contained in them.

CHAP. VIII.

Of Abstract and Concrete Terms.

Abstract terms not predicable one of another, and why.

§. 1. THE ordinary words of language, and our common use of them, would have given us light into the nature of our ideas, if they had been but considered with attention. The mind, as has been shown, has a power to abstract its ideas, and so they become essences, general essences, whereby the sorts of things are distinguished. Now each abstract idea being distinct, so that of any two the one can never be the other, the mind will, by its intuitive knowledge, perceive their difference; and therefore in propositions no two whole ideas can ever be affirmed one of another. This we see in the common use of language, which permits not any two abstract words, or names of abstract ideas, to be affirmed one of another. For how near of kin soever they may seem to be, and how certain soever it is, that man is an animal, or rational, or white, yet every one at first hearing perceives the falsehood of these propositions; humanity is animality, or rationality, or whiteness: and this is as evident, as any of the most allowed maxims. All our affirmations then are only inconcrete, which is the affirming, not one abstract idea to be another, but one abstract idea to be joined to another; which abstract ideas, in substances, may be of any sort; in all the rest, are little else but of relations;

and in substances, the most frequent are of powers; v. g. "a man is white," signifies, that the thing that has the essence of a man, has also in it the essence of whiteness, which is nothing but a power to produce the idea of whiteness in one, whose eyes can discover ordinary objects; or "a man is rational," signifies that the same thing that hath the essence of a man, hath also in it the essence of rationality, i. e. a power of reasoning.

They show the difference of our ideas.

§. 2. This distinction of names shows us also the difference of our ideas: for if we observe them, we shall find that our simple ideas have all abstract, as well as concrete names; the one whereof is (to speak the language of grammarians) a substantive, the other an adjective; as whiteness, white, sweetness, sweet. The like also holds in our ideas of modes and relations; as justice, just; equality, equal; only with this difference, that some of the concrete names of relations, amongst men chiefly, are substantives; as paternitas, pater; whereof it were easy to render a reason. But as to our ideas of substances, we have very few or no abstract names at all. For though the schools have introduced animalitas, humanitas, corporietas, and some others; yet they hold no proportion with that infinite number of names of substances, to which they never were ridiculous enough to attempt the coining of abstract ones: and those few that the schools forged, and put into the mouths of their scholars, could never yet get admittance into common use, or obtain the licence of public approbation. Which seems to me at least to intimate the confession of all mankind, that they have no ideas of the real essences of substances, since they have not names for such ideas: which no doubt they would have had, had not their consciousness to themselves of their ignorance of them kept them from so idle an attempt. And therefore though they had ideas enough to distinguish gold from a stone, and metal from wood; yet they but timorously ventured on such terms, as aurietas and saxietas, metallietas and lignietas, or the like names, which should pretend to signify the real essences of those substances, whereof they knew they had no ideas. And indeed it

was only the doctrine of substantial forms, and the confidence of mistaken pretenders to a knowledge that they had not, which first coined, and then introduced animalitas, and humanitas, and the like; which yet went very little farther than their own schools, and could never get to be current amongst understanding men. Indeed, humanitas was a word familiar amongst the Romans, but in a far different sense, and stood not for the abstract essence of any substance; but was the abstracted name of a mode, and its concrete humanus, not homo.

CHAP. IX.

Of the Imperfection of Words.

Words are used for recording and communicating our thoughts.

§. 1. FROM what has been said in the foregoing chapters, it is easy to perceive what imperfection there is in language, and how the very nature of words makes it almost unavoidable for many of them to be doubtful and uncertain in their significations. To examine the perfection or imperfection of words, it is necessary first to consider their use and end: for as they are more or less fitted to attain that, so they are more or less perfect. We have, in the former part of this discourse, often upon occasion mentioned a double use of words.

First, one for the recording of our own thoughts.

Secondly, the other for the communicating of our thoughts to others.

Any words will serve for recording.

§. 2. As to the first of these, for the recording our own thoughts for the help of our own memories, whereby, as it were, we talk to ourselves, any words will serve the turn. For since sounds are voluntary and indifferent signs of any ideas, a man may use what words he pleases, to signify his own ideas to himself: and there will be no imperfection in them, if he constantly use the same

sign for the same idea; for then he cannot fail of having his meaning understood, wherein consists the right use and perfection of language.

§. 3. Secondly, as to communication of words, that too has a double use.

I. Civil.

II. Philosophical.

Communication by words civil or philosophical.

First, by their civil use, I mean such a communication of thoughts and ideas by words, as may serve for the upholding common conversation and commerce, about the ordinary affairs and conveniencies of civil life, in the societies of men one amongst another.

Secondly, by the philosophical use of words, I mean such an use of them, as may serve to convey the precise notions of things, and to express, in general propositions, certain and undoubted truths, which the mind may rest upon, and be satisfied with, in its search after true knowledge. These two uses are very distinct; and a great deal less exactness will serve in the one than in the other, as we shall see in what follows.

§. 4. The chief end of language in communication being to be understood, words serve not well for that end, neither in civil nor philosophical discourse, when any word does not excite in the hearer the same idea which it stands for in the mind of the speaker. Now since sounds have no natural connexion with our ideas, but have all their signification from the arbitrary imposition of men; the doubtfulness and uncertainty of their signification, which is the imperfection we here are speaking of, has its cause more in the ideas they stand for, than in any incapacity there is in one sound more than in another, to signify any idea: for in that regard they are all equally perfect.

The imperfection of words is the doubtfulness of their signification.

That then which makes doubtfulness and uncertainty in the signification of some more than other words, is the difference of ideas they stand for.

§. 5. Words having naturally no signification, the idea which each stands for must be learned and retained by those who would exchange thoughts, and hold intelligible

Causes of their imperfection.

discourse with others in any language. But this is hardest to be done, where,

First, the ideas they stand for are very complex, and made up of a great number of ideas put together.

Secondly, where the ideas they stand for have no certain connexion in nature; and so no settled standard, any where in nature existing, to rectify and adjust them by.

Thirdly, when the signification of the word is referred to a standard, which standard is not easy to be known.

Fourthly, where the signification of the word, and the real essence of the thing, are not exactly the same.

These are difficulties that attend the signification of several words that are intelligible. Those which are not intelligible at all, such as names standing for any simple ideas, which another has not organs or faculties to attain; as the names of colours to a blind man, or sounds to a deaf man; need not here be mentioned.

In all these cases we shall find an imperfection in words, which I shall more at large explain, in their particular application to our several sorts of ideas: for if we examine them, we shall find that the names of mixed modes are most liable to doubtfulness and imperfection, for the two first of these reasons; and the names of substances chiefly for the two latter.

The names of mixed modes doubtful. First, because the ideas they stand for are so complex.

§. 6. First the names of mixed modes are many of them liable to great uncertainty and obscurity in their signification.

I. Because of that great composition these complex ideas are often made up of. To make words serviceable to the end of communication, it is necessary (as has been said) that they excite in the hearer exactly the same idea they stand for in the mind of the speaker. Without this, men fill one another's heads with noise and sounds; but convey not thereby their thoughts, and lay not before one another their ideas, which is the end of discourse and language. But when a word stands for a very complex idea that is compounded and decompounded, it is not easy for men to form and retain that idea so exactly,

as to make the name in common use stand for the same precise idea, without any the least variation. Hence it comes to pass that men's names of very compound ideas, such as for the most part are moral words, have seldom, in two different men, the same precise signification; since one man's complex idea seldom agrees with another's, and often differs from his own, from that which he had yesterday, or will have to-morrow.

Secondly, because they have no standards.

§. 7. II. Because the names of mixed modes, for the most part, want standards in nature, whereby men may rectify and adjust their significations; therefore they are very various and doubtful. They are assemblages of ideas put together at the pleasure of the mind, pursuing its own ends of discourse, and suited to its own notions; whereby it designs not to copy any thing really existing, but to denominate and rank things, as they come to agree with those archetypes or forms it has made. He that first brought the word sham, or wheedle, or banter, in use, put together, as he thought fit, those ideas he made it stand for: and as it is with any new names of modes, that are now brought into any language; so it was with the old ones, when they were first made use of. Names therefore that stand for collections of ideas which the mind makes at pleasure, must needs be of doubtful signification, when such collections are no where to be found constantly united in nature, nor any patterns to be shown whereby men may adjust them. What the word murder, or sacrilege, &c. signifies, can never be known from things themselves: there be many of the parts of those complex ideas, which are not visible in the action itself; the intention of the mind, or the relation of holy things, which make a part of murder or sacrilege, have no necessary connexion with the outward and visible action of him that commits either: and the pulling the trigger of the gun, with which the murder is committed, and is all the action that perhaps is visible, has no natural connexion with those other ideas that make up the complex one, named murder. They have their union and combination only from the understanding, which unites them under one name: but

uniting them without any rule or pattern, it cannot be but that the signification of the name that stands for such voluntary collections should be often various in the minds of different men, who have scarce any standing rule to regulate themselves and their notions by, in such arbitrary ideas.

Propriety not a sufficient remedy.

§. 8. It is true, common use, that is the rule of propriety, may be supposed here to afford some aid, to settle the signification of language; and it cannot be denied, but that in some measure it does. Common use regulates the meaning of words pretty well for common conversation; but nobody having an authority to establish the precise signification of words, nor determined to what ideas any one shall annex them, common use is not sufficient to adjust them to philosophical discourses; there being scarce any name of any very complex idea (to say nothing of others) which in common use has not a great latitude, and which keeping within the bounds of propriety, may not be made the sign of far different ideas. Besides, the rule and measure of propriety itself being no where established, it is often matter of dispute whether this or that way of using a word be propriety of speech or no. From all which it is evident, that the names of such kind of very complex ideas are naturally liable to this imperfection, to be of doubtful and uncertain signification; and even in men that have a mind to understand one another, do not always stand for the same idea in speaker and hearer. Though the names glory and gratitude be the same in every man's mouth through a whole country, yet the complex collective idea, which every one thinks on, or intends by that name, is apparently very different in men using the same language.

The way of learning these names contributes also to their doubtfulness.

§. 9. The way also wherein the names of mixed modes are ordinarily learned, does not a little contribute to the doubtfulness of their signification. For if we will observe how children learn languages, we shall find that to make them understand what the names of simple ideas, or substances, stand for, people ordinarily show them the thing, whereof they would

have them have the idea; and then repeat to them the name that stands for it, as white, sweet, milk, sugar, cat, dog. But as for mixed modes, especially the most material of them, moral words, the sounds are usually learned first; and then to know what complex ideas they stand for, they are either beholden to the explication of others, or (which happens for the most part) are left to their own observation and industry; which being little laid out in the search of the true and precise meaning of names, these moral words are in most men's mouths little more than bare sounds; or when they have any, it is for the most part but a very loose and undetermined, and consequently obscure and confused signification. And even those themselves who have with more attention settled their notions, do yet hardly avoid the inconvenience, to have them stand for complex ideas, different from those which other, even intelligent and studious men, make them the signs of. Where shall one find any, either controversial debate, or familiar discourse, concerning honour, faith, grace, religion, church, &c. wherein it is not easy to observe the different notions men have of them? which is nothing but this, that they are not agreed in the signification of those words, nor have in their minds the same complex ideas which they make them stand for: and so all the contests that follow thereupon, are only about the meaning of a sound. And hence we see, that in the interpretation of laws, whether divine or human, there is no end; comments beget comments, and explications make new matter for explications; and of limiting, distinguishing, varying the signification of these moral words, there is no end. These ideas of men's making are, by men still having the same power, multiplied in infinitum. Many a man who was pretty well satisfied of the meaning of a text of scripture, or clause in the code at first reading, has by consulting commentators quite lost the sense of it, and by these elucidations given rise or increase to his doubts, and drawn obscurity upon the place. I say not this, that I think commentaries needless; but to show how uncertain the names of mixed modes naturally are, even in the mouths of those who had both the intention

and the faculty of speaking as clearly as language was capable to express their thoughts.

Hence unavoidable obscurity in ancient authors.

§. 10. What obscurity this has unavoidably brought upon the writings of men, who have lived in remote ages and different countries, it will be needless to take notice; since the numerous volumes of learned men, employing their thoughts that way, are proofs more than enough to show what attention, study, sagacity, and reasoning are required, to find out the true meaning of ancient authors. But there being no writings we have any great concernment to be very solicitous about the meaning of, but those that contain either truths we are required to believe, or laws we are to obey, and draw inconveniencies on us when we mistake or transgress, we may be less anxious about the sense of other authors; who writing but their own opinions, we are under no greater necessity to know them, than they to know ours. Our good or evil depending not on their decrees, we may safely be ignorant of their notions: and therefore, in the reading of them, if they do not use their words with a due clearness and perspicuity, we may lay them aside, and, without any injury done them, resolve thus with ourselves,

"Si non vis intelligi, debes negligi."

Names of substances of doubtful signification.

§. 11. If the signification of the names of mixed modes are uncertain, because there be no real standards existing in nature, to which those ideas are referred, and by which they may be adjusted; the names of substances are of a doubtful signification, for a contrary reason, viz. because the ideas they stand for are supposed conformable to the reality of things, and are referred to standards made by nature. In our ideas of substances we have not the liberty, as in mixed modes, to frame what combinations we think fit, to be the characteristical notes to rank and denominate things by. In these we must follow nature, suit our complex ideas to real existences, and regulate the signification of their names by the things themselves, if we will have our names to be signs of them, and stand for them. Here, it is true, we have patterns to follow;

but patterns that will make the signification of their names very uncertain: for names must be of a very unsteady and various meaning, if the ideas they stand for be referred to standards without us, that either cannot be known at all, or can be known but imperfectly and uncertainly.

Names of substances referred, 1. To real essences that cannot be known.

§. 12. The names of substances have, as has been shown, a double reference in their ordinary use.

First, sometimes they are made to stand for, and so their signification is supposed to agree to the real constitution of things, from which all their properties flow, and in which they all centre. But this real constitution, or (as it is apt to be called) essence being utterly unknown to us, any sound that is put to stand for it, must be very uncertain in its application; and it will be impossible to know what things are, or ought to be called an horse, or anatomy, when those words are put for real essences, that we have no ideas of at all. And therefore, in this supposition, the names of substances being referred to standards that cannot be known, their significations can never be adjusted and established by those standards.

2. To co-existing qualities, which are known but imperfectly.

§. 13. Secondly, the simple ideas that are found to co-exist in substances being that which their names immediately signify, these, as united in the several sorts of things, are the proper standards to which their names are referred, and by which their significations may be best rectified. But neither will these archetypes so well serve to this purpose, as to leave these names without very various and uncertain significations. Because these simple ideas that co-exist, and are united in the same subject, being very numerous, and having all an equal right to go into the complex specific idea, which the specific name is to stand for; men, though they propose to themselves the very same subject to consider, yet frame very different ideas about it; and so the name they use for it unavoidably comes to have, in several men, very different significations. The simple qualities which make up the complex ideas being most

of them powers, in relation to changes, which they are apt to make in, or receive from other bodies, are almost infinite. He that shall but observe what a great variety of alterations any one of the baser metals is apt to receive from the different application only of fire; and how much a greater number of changes any of them will receive in the hands of a chymist, by the application of other bodies; will not think it strange that I count the properties of any sort of bodies not easy to be collected, and completely known by the ways of inquiry, which our faculties are capable of. They being therefore at least so many, that no man can know the precise and definite number, they are differently discovered by different men, according to their various skill, attention, and ways of handling; who therefore cannot choose but have different ideas of the same substance, and therefore make the signification of its common name very various and uncertain. For the complex ideas of substances being made up of such simple ones as are supposed to co-exist in nature, every one has a right to put into his complex idea those qualities he has found to be united together. For though in the substance of gold one satisfies himself with colour and weight, yet another thinks solubility in aq. regia as necessary to be joined with that colour in his idea of gold, as any one does its fusibility; solubility in aq. regia being a quality as constantly joined with its colour and weight, as fusibility, or any other; others put into it ductility or fixedness, &c. as they have been taught by tradition or experience. Who of all these has established the right signification of the word gold? or who shall be the judge to determine? Each has its standard in nature, which he appeals to, and with reason thinks he has the same right to put into his complex idea, signified by the word gold, those qualities which upon trial he has found united; as another, who was not so well examined, has to leave them out; or a third, who has made other trials, has to put in others. For the union in nature of these qualities being the true ground of their union in one complex idea, who can say, one of them has more reason to be put in, or left out, than another? From hence it will

always unavoidably follow, that the complex ideas of substances, in men using the same name for them, will be very various; and so the significations of those names very uncertain.

3. To co-existing qualities which are known but imperfectly.

§. 14. Besides, there is scarce any particular thing existing, which, in some of its simple ideas, does not communicate with a greater, and in others a less number of particular beings: who shall determine in this case which are those that are to make up the precise collection that is to be signified by the specific name; or can with any just authority prescribe, which obvious or common qualities are to be left out; or which more secret, or more particular, are to be put into the signification of the name of any substance? All which together seldom or never fail to produce that various and doubtful signification in the names of substances, which causes such uncertainty, disputes, or mistakes, when we come to a philosophical use of them.

With this imperfection they may serve for civil, but not well for philosophical use.

§. 15. It is true, as to civil and common conversation, the general names of substances, regulated in their ordinary signification by some obvious qualities, (as by the shape and figure in things of known seminal propagation, and in other substances, for the most part by colour, joined with some other sensible qualities) do well enough to design the things men would be understood to speak of: and so they usually conceive well enough the substances meant by the word gold, or apple, to distinguish the one from the other. But in philosophical inquiries and debates, where general truths are to be established, and consequences drawn from positions laid down; there the precise signification of the names of substances will be found, not only not to be well established, but also very hard to be so. For example, he that shall make malleableness, or a certain degree of fixedness, a part of his complex idea of gold, may make propositions concerning gold, and draw consequences from them, that will truly and clearly follow from gold, taken in such a signification: but yet such as another man can never be

forced to admit, nor be convinced of their truth, who makes not malleableness, or the same degree of fixedness, part of that complex idea, that the name gold, in his use of it, stands for.

Instance, liquor.

§. 16. This is a natural, and almost unavoidable imperfection in almost all the names of substances, in all languages whatsoever which men will easily find, when once passing from confused or loose notions, they come to more strict and close inquiries. For then they will be convinced how doubtful and obscure those words are in their signification, which in ordinary use appeared very clear and determined. I was once in a meeting of very learned and ingenious physicians, where by chance there arose a question, whether any liquor passed through the filaments of the nerves. The debate having been managed a good while, by variety of arguments on both sides, I (who had been used to suspect, that the greatest part of disputes was more about the signification of words than a real difference in the conception of things) desired, that before they went any farther on in this dispute, they would first examine, and establish amongst them, what the word liquor signified. They at first were a little surprised at the proposal; and had they been persons less ingenious, they might perhaps have taken it for a very frivolous or extravagant one: since there was no one there that thought not himself to understand very perfectly what the word liquor stood for; which I think too none of the most perplexed names of substances. However, they were pleased to comply with my motion, and upon examination found, that the signification of that word was not so settled and certain as they had all imagined; but that each of them made it a sign of a different complex idea. This made them perceive that the main of their dispute was about the signification of that term; and that they differed very little in their opinions, concerning some fluid and subtile matter, passing through the conduits of the nerves; though it was not so easy to agree whether it was to be called liquor or no, a thing which, when considered, they thought it not worth the contending about.

§. 17. How much this is the case, in the greatest part of disputes that men are engaged so hotly in, I shall perhaps have an occasion in another place to take notice. Let us only here consider a little more exactly the fore-mentioned instance of the word gold, and we shall see how hard it is precisely to determine its signification. I think all agree to make it stand for a body of a certain yellow shining colour; which being the idea to which children have annexed that name, the shining yellow part of a peacock's tail is properly to them gold. Others finding fusibility joined with that yellow colour in certain parcels of matter, make of that combination a complex idea, to which they give the name gold to denote a sort of substances; and so exclude from being gold all such yellow shining bodies, as by fire will be reduced to ashes; and admit to be of that species, or to be comprehended under that name gold, only such substances as having that shining yellow colour will by fire be reduced to fusion, and not to ashes. Another by the same reason adds the weight, which being a quality, as straitly joined with that colour, as its fusibility, he thinks has the same reason to be joined in its idea, and to be signified by its name: and therefore the other made up of body, of such a colour and fusibility, to be imperfect; and so on of all the rest: wherein no one can show a reason why some of the inseparable qualities, that are always united in nature, should be put into the nominal essence, and others left out: or why the word gold, signifying that sort of body the ring on his finger is made of, should determine that sort rather by its colour, weight, and fusibility, than by its colour, weight, and solubility in aq. regia: since the dissolving it by that liquor is as inseparable from it as the fusion by fire; and they are both of them nothing but the relation which that substance has to two other bodies, which have a power to operate differently upon it. For by what right is it that fusibility comes to be a part of the essence signified by the word gold, and solubility but a property of it? or why is its colour part of the essence, and its malleableness but a property? That which I mean is

Instance, gold.

this, That these being all but properties depending on its real constitution, and nothing but powers, either active or passive, in reference to other bodies: no one has authority to determine the signification of the word gold (as referred to such a body existing in nature) more to one collection of ideas to be found in that body than to another; whereby the signification of that name must unavoidably be very uncertain; since, as has been said, several people observe several properties in the same substance; and, I think, I may say nobody at all. And therefore we have but very imperfect descriptions of things, and words have very uncertain significations.

The names of simple ideas the least doubtful.

§. 18. From what has been said, it is easy to observe what has been before remarked, viz. That the names of simple ideas are, of all others, the least liable to mistakes, and that for these reasons. First, because the ideas they stand for, being each but one single perception, are much easier got, and more clearly retained, than the more complex ones, and therefore are not liable to the uncertainty which usually attends those compounded ones of substances and mixed modes, in which the precise number of simple ideas, that make them up, are not easily agreed, and so readily kept in the mind. And secondly, because they are never referred to any other essence, but barely that perception they immediately signify: which reference is that which renders the signification of the names of substances naturally so perplexed, and gives occasion to so many disputes. Men that do not perversely use their words, or on purpose set themselves to cavil, seldom mistake in any language, which they are acquainted with, the use and signification of the names of simple ideas: white and sweet, yellow and bitter, carry a very obvious meaning with them, which every one precisely comprehends, or easily perceives he is ignorant of, and seeks to be informed. But what precise collection of simple ideas modesty or frugality stand for in another's use, is not so certainly known. And however we are apt to think we well enough know what is meant by gold or iron; yet the precise complex idea, others make them the signs of,

is not so certain: and I believe it is very seldom that, in speaker and hearer, they stand for exactly the same collection. Which must needs produce mistakes and disputes, when they are made use of in discourses, wherein men have to do with universal propositions, and would settle in their minds universal truths, and consider the consequences that follow from them.

And next to them, simple modes.

§. 19. By the same rule, the names of simple modes are, next to those of simple ideas, least liable to doubt and uncertainty, especially those of figure and number, of which men have so clear and distinct ideas. Who ever, that had a mind to understand them, mistook the ordinary meaning of seven, or a triangle? And in general the least compounded ideas in every kind have the least dubious names.

The most doubtful are the names of very compounded mixed modes and substances.

§. 20. Mixed modes therefore, that are made up but of a few and obvious simple ideas, have usually names of no very uncertain signification. But the names of mixed modes, which comprehend a great number of simple ideas, are commonly of a very doubtful and undetermined meaning, as has been shown. The names of substances being annexed to ideas that are neither the real essences nor exact representations of the patterns they are referred to, are liable yet to greater imperfection and uncertainty, especially when we come to a philosophical use of them.

Why this imperfection charged upon words.

§. 21. The great disorder that happens in our names of substances, proceeding for the most part from our want of knowledge, and inability to penotrate into their real constitutions, it may probably be wondered, why I charge this as an imperfection rather upon our words than understandings. This exception has so much appearance of justice, that I think myself obliged to give a reason why I have followed this method. I must confess then, that when I first began this discourse of the understanding, and a good while after, I had not the least thought that any consideration of words was at all necessary to it. But when having passed over the original and composi-

tion of our ideas, I began to examine the extent and certainty of our knowledge, I found it had so near a connexion with words, that, unless their force and manner of signification were first well observed, there could be very little said clearly and pertinently concerning knowledge; which being conversant about truth, had constantly to do with propositions. And though it terminated in things, yet it was for the most part so much by the intervention of words, that they seemed scarce separable from our general knowledge. At least they interpose themselves so much between our understandings and the truth which it would contemplate and apprehend, that like the medium through which visible objects pass, their obscurity and disorder do not seldom cast a mist before our eyes, and impose upon our understandings. If we consider, in the fallacies men put upon themselves as well as others, and the mistakes in men's disputes and notions, how great a part is owing to words, and their uncertain or mistaken significations, we shall have reason to think this no small obstacle in the way to knowledge; which, I conclude, we are the more carefully to be warned of, because it has been so far from being taken notice of as an inconvenience, that the arts of improving it have been made the business of men's study; and obtained the reputation of learning and subtility, as we shall see in the following chapter. But I am apt to imagine, that were the imperfections of language, as the instrument of knowledge, more thoroughly weighed, a great many of the controversies that make such a noise in the world, would of themselves cease; and the way to knowledge, and perhaps peace too, lie a great deal opener than it does.

This should teach us moderation, in imposing our own sense of old authors.

§. 22. Sure I am, that the signification of words in all languages depending very much on the thoughts, notions, and ideas of him that uses them, must unavoidably be of great uncertainty to men of the same language and country. This is so evident in the Greek authors, that he that shall peruse their writings will find in almost every one of them a distinct language, though the same words. But when to this natural dif-

ficulty in every country there shall be added different countries and remote ages, wherein the speakers and writers had very different notions, tempers, customs, ornaments and figures of speech, &c. every one of which influenced the signification of their words then, though to us now they are lost and unknown; it would become us to be charitable one to another in our interpretations or misunderstanding of those ancient writings: which though of great concernment to be understood, are liable to the unavoidable difficulties of speech, which (if we except the names of simple ideas, and some very obvious things) is not capable, without a constant defining the terms, of conveying the sense and intention of the speaker, without any manner of doubt and uncertainty, to the hearer. And in discourses of religion, law, and morality, as they are matters of the highest concernment, so there will be the greatest difficulty.

§. 23. The volumes of interpreters and commentators on the old and new Testament are but too manifest proofs of this. Though every thing said in the text be infallibly true, yet the reader may be, nay cannot choose but be very fallible in the understanding of it. Nor is it to be wondered, that the will of God, when cloathed in words, should be liable to that doubt and uncertainty, which unavoidably attends that sort of conveyance; when even his Son, whilst cloathed in flesh, was subject to all the frailties and inconveniencies of human nature, sin excepted. And we ought to magnify his goodness that he hath spread before all the world such legible characters of his works and providence, and given all mankind so sufficient a light of reason, that they to whom this written word never came, could not (whenever they set themselves to search) either doubt of the being of a God, or of the obedience due to him. Since then the precepts of natural religion are plain, and very intelligible to all mankind, and seldom come to be controverted; and other revealed truths, which are conveyed to us by books and languages, are liable to the common and natural obscurities and difficulties incident to words; methinks it would become us to be more careful and diligent in observing the former, and less

magisterial, positive, and imperious, in imposing our own sense and interpretations of the latter.

CHAP. X.

Of the Abuse of Words.

Abuse of words.

§. 1. BESIDES the imperfection that is naturally in language, and the obscurity and confusion that is so hard to be avoided in the use of words, there are several wilful faults and neglects which men are guilty of in this way of communication, whereby they render these signs less clear and distinct in their signification, than naturally they need to be.

First, Words without any, or without clear ideas.

§. 2. First, in this kind, the first and most palpable abuse is, the using of words *without clear and distinct ideas; or,* which *is worse, signs without any thing signified.* Of these there are two sorts:

I. One may observe, in all languages, certain words, that if they be examined, will be found, in their first original and their appropriated use, not to stand for any clear and distinct ideas. These, for the most part, the several sects of philosophy and religion have introduced. For their authors, or promoters, either affecting something singular and out of the way of common apprehensions, or to support some strange opinions, or cover some weakness of their hypothesis, seldom fail to coin new words, and such as, when they come to be examined, may justly be called insignificant terms. For having either had no determinate collection of ideas annexed to them, when they were first invented; or at least such as, if well examined, will be found inconsistent; it is no wonder if afterwards, in the vulgar use of the same party, they remain empty sounds, with little or no signification, amongst those who think it enough to have

them often in their mouths, as the distinguishing characters of their church, or school, without much troubling their heads to examine what are the precise ideas they stand for. I shall not need here to heap up instances; every man's reading and conversation will sufficiently furnish him; or if he wants to be better stored, the great mint-masters of this kind of terms, I mean the school-men and metaphysicians (under which, I think, the disputing natural and moral philosophers of these latter ages may be comprehended) have wherewithal abundantly to content him.

§. 3. *II.* Others there be, who extend this abuse yet farther, who take so little care to lay by words, which in their primary notation have scarce any clear and distinct ideas which they are annexed to, that by an unpardonable negligence they familiarly use words, which the propriety of language has affixed to very important ideas, without any distinct meaning at all. Wisdom, glory, grace, &c. are words frequent enough in every man's mouth; but if a great many of those who use them, should be asked what they mean by them, they would be at a stand, and not know what to answer: a plain proof, that though they have learned those sounds, and have them ready at their tongue's end, yet there are no determined ideas laid up in their minds, which are to be expressed to others by them.

Occasioned by learning names before the ideas they belong to.

§. 4. Men having been accustomed from their cradles to learn words, which are easily got and retained, before they knew, or had framed the complex ideas, to which they were annexed, or which were to be found in the things they were thought to stand for; they usually continue to do so all their lives; and without taking the pains necessary to settle in their minds determined ideas, they use their words for such unsteady and confused notions as they have, contenting themselves with the same words other people use: as if their very sound necessarily carried with it constantly the same meaning. This, though men make a shift with, in the ordinary occurrences of life, where they find it necessary to be understood, and therefore they make signs till they are

so; yet this insignificancy in their words, when they come to reason concerning either their tenets or interest, manifestly fills their discourse with abundance of empty unintelligible noise and jargon, especially in moral matters, where the words for the most part standing for arbitrary and numerous collections of ideas, not regularly and permanently united in nature, their bare sounds are often only thought on, or at least very obscure and uncertain notions annexed to them. Men take the words they find in use amongst their neighbours; and that they may not seem ignorant what they stand for, use them confidently, without much troubling their heads about a certain fixed meaning; whereby, besides the ease of it, they obtain this advantage, that as in such discourses they seldom are in the right, so they are as seldom to be convinced that they are in the wrong; it being all one to go about to draw those men out of their mistakes, who have no settled notions, as to dispossess a vagrant of his habitation, who has no settled abode. This I guess to be so; and every one may observe in himself and others, whether it be or no.

2. Unsteady application of them.

§. 5. Secondly, another great abuse of words is inconstancy in the use of them. It is hard to find a discourse written of any subject, especially of controversy, wherein one shall not observe, if he read with attention, the same words (and those commonly the most material in the discourse, and upon which the argument turns) used sometimes for one collection of simple ideas, and sometimes for another: which is a perfect abuse of language. Words being intended for signs of my ideas, to make them known to others, not by any natural signification, but by a voluntary imposition, it is plain cheat and abuse, when I make them stand sometimes for one thing, and sometimes for another; the wilful doing whereof, can be imputed to nothing but great folly, or greater dishonesty. And a man, in his accounts with another, may, with as much fairness, make the characters of numbers stand sometimes for one, and sometimes for another collection of units (v. g. this character 3 stand sometimes for three, sometimes for four, and sometimes for

eight) as in his discourse, or reasoning, make the same words stand for different collections of simple ideas. If men should do so in their reckonings, I wonder who would have to do with them? One who would speak thus, in the affairs and business of the world, and call 8 sometimes seven, and sometimes nine, as best served his advantage, would presently have clapped upon him one of the two names men are commonly disgusted with. And yet in arguings and learned contests, the same sort of proceedings passes commonly for wit and learning: but to me it appears a greater dishonesty, than the misplacing of counters in the casting up a debt; and the cheat the greater, by how much truth is of greater concernment and value than money.

3. Affected obscurity by wrong application.

§. 6. Thirdly, another abuse of language is an affected obscurity, by either applying old words to new and unusual significations, or introducing new and ambiguous terms, without defining either; or else putting them so together, as may confound their ordinary meaning. Though the Peripatetic philosophy has been most eminent in this way, yet other sects have not been wholly clear of it. There are scarce any of them that are not cumbered with some difficulties (such is the imperfection of human knowledge) which they have been fain to cover with obscurity of terms, and to confound the signification of words, which, like a mist before people's eyes, might hinder their weak parts from being discovered. That body and extension, in common use, stand for two distinct ideas, is plain to any one that will but reflect a little. For were their signification precisely the same, it would be proper, and as intelligible to say, the body of an extension, as the extension of a body; and yet there are those who find it necessary to confound their signification. To this abuse, and the mischiefs of confounding the signification of words, logick and the liberal sciences, as they have been handled in the schools, have given reputation; and the admired art of disputing hath added much to the natural imperfection of languages, whilst it has been made use of and fitted to perplex the signification of words, more than to discover

the knowledge and truth of things: and he that will look into that sort of learned writings, will find the words there much more obscure, uncertain, and undetermined in their meaning, than they are in ordinary conversation.

Logick and dispute have much contributed to this.

§. 7. This is unavoidably to be so, where men's parts and learning are estimated by their skill in disputing. And if reputation and reward shall attend these conquests, which depend mostly on the fineness and niceties of words, it is no wonder if the wit of man, so employed, should perplex, involve, and subtilize the signification of sounds, so as never to want something to say, in opposing or defending any question; the victory being adjudged not to him who had truth on his side, but the last word in the dispute.

Calling it subtilty.

§. 8. This, though a very useless skill, and that which I think the direct opposite to the ways of knowledge, hath yet passed hitherto under the laudable and esteemed names of subtilty and acuteness: and has had the applause of the schools, and encouragement of one part of the learned men of the world. And no wonder, since the philosophers of old (the disputing and wrangling philosophers I mean, such as Lucian wittily and with reason taxes) and the schoolmen since, aiming at glory and esteem for their great and universal knowledge, easier a great deal to be pretended to than really acquired, found this a good expedient to cover their ignorance with a curious and inexplicable web of perplexed words, and procure to themselves the admiration of others by unintelligible terms, the apter to produce wonder, because they could not be understood: whilst it appears in all history, that these profound doctors were no wiser, nor more useful than their neighbours; and brought but small advantage to human life, or the societies wherein they lived: unless the coining of new words, where they produced no new things to apply them to, or the perplexing or obscuring the signification of old ones, and so bringing all things into question and dispute, were a thing pro-

fitable to the life of man, or worthy commendation and reward.

§. 9. For notwithstanding these learned disputants, these all-knowing doctors, it was to the unscholastic statesman, that the governments of the world owed their peace, defence, and liberties; and from the illiterate and contemned mechanick (a name of disgrace) that they received the improvements of useful arts. Nevertheless, this artificial ignorance, and learned gibberish, prevailed mightily in these last ages, by the interest and artifice of those who found no easier way to that pitch of authority and dominion they have attained, than by amusing the men of business and ignorant with hard words, or employing the ingenious and idle in intricate disputes about unintelligible terms, and holding them perpetually entangled in that endless labyrinth. Besides, there is no such way to gain admittance, or give defence to strange and absurd doctrines, as to guard them round about with legions of obscure, doubtful, and undefined words: which yet make these retreats more like the dens of robbers, or holes of foxes, than the fortresses of fair warriors; which if it be hard to get them out of, it is not for the strength that is in them, but the briars and thorns, and the obscurity of the thickets they are beset with. For untruth being unacceptable to the mind of man, there is no other defence left for absurdity, but obscurity.

This learning very little benefits society.

§. 10. Thus learned ignorance, and this art of keeping, even inquisitive men, from true knowledge, hath been propagated in the world, and hath much perplexed whilst it pretended to inform the understanding. For we see that other well-meaning and wise men, whose education and parts had not acquired that acuteness, could intelligibly express themselves to one another; and in its plain use make a benefit of language. But though unlearned men well enough understood the words white and black, &c. and had constant notions of the ideas signified by those words; yet there were philosophers found, who had learning and subtilty

But destroys the instruments of knowledge and communication.

enough to prove, that snow was black; i. e. to prove, that white was black. Whereby they had the advantage to destroy the instruments and means of discourse, conversation, instruction, and society; whilst with great art and subtilty they did no more but perplex and confound the signification of words, and thereby render language less useful, than the real defects of it had made it; a gift, which the illiterate had not attained to.

As useful as to confound the sound of the letters.

§. 11. These learned men did equally instruct men's understandings, and profit their lives, as he who should alter the signification of known characters, and, by a subtle device of learning, far surpassing the capacity of the illiterate, dull, and vulgar, should in his writing, show that he could put A for B, and D for E, &c. to the no small admiration and benefit of his reader: it being as senseless to put black, which is a word agreed on to stand for one sensible idea, to put it, I say, for another, or the contrary idea, i. e. to call snow black, as to put this mark A, which is a character agreed on to stand for one modification of sound, made by a certain motion of the organs of speech, for B; which is agreed on to stand for another modification of sound, made by another certain mode of the organs of speech.

This art has perplexed religion and justice.

§. 12. Nor hath this mischief stopped in logical niceties, or curious empty speculations; it hath invaded the great concernments of human life and society, obscured and perplexed the material truths of law and divinity; brought confusion, disorder, and uncertainty into the affairs of mankind; and if not destroyed, yet in a great measure rendered useless, these two great rules, religion and justice. What have the greatest part of the comments and disputes upon the laws of God and man served for, but to make the meaning more doubtful, and perplex the sense? What have been the effect of those multiplied curious distinctions and acute niceties, but obscurity and uncertainty, leaving the words more unintelligible, and the reader more at a loss? How else comes it to pass that princes, speaking or writing to their servants, in their ordinary commands, are easily

understood; speaking to their people, in their laws, are not so? And, as I remarked before, doth it not often happen, that a man of an ordinary capacity very well understands a text or a law that he reads, till he consults an expositor, or goes to counsel; who, by that time he hath done explaining them, makes the words signify either nothing at all, or what he pleases.

§. 13. Whether any by-interests of these professions have occasioned this, I will not here examine; but I leave it to be considered, whether it would not be well for mankind, whose concernment it is to know things as they are, and to do what they ought, and not to spend their lives in talking about them, or tossing words to and fro; whether it would not be well, I say, that the use of words were made plain and direct, and that language, which was given us for the improvement of knowledge and bond of society, should not be employed to darken truth, and unsettle people's rights; to raise mists, and render unintelligible both morality and religion? Or that at least, if this will happen, it should not be thought learning or knowledge to do so? And ought not to pass for learning.

§. 14. Fourthly, another great abuse of words is, the taking them for things. This though it in some degree concerns all names in general, yet more particularly affects those of substances. To this abuse those men are most subject, who most confine their thoughts to any one system, and give themselves up into a firm belief of the perfection of any received hypothesis; whereby they come to be persuaded, that the terms of that sect are so suited to the nature of things, that they perfectly correspond with their real existence. Who is there, that has been bred up in the Peripatetic philosophy, who does not think the ten names, under which are ranked the ten predicaments, to be exactly conformable to the nature of things? Who is there of that school, that is not persuaded, that substantial forms, vegetative souls, abhorrence of a vacuum, intentional species, &c. are something real? These words men have learned from their very entrance upon knowledge, and have found their masters and systems 4. Taking them for things.

lay great stress upon them; and therefore they cannot quit the opinion, that they are conformable to nature, and are the representations of something that really exists. The Platonists have their soul of the world, and the Epicureans their endeavour towards motion in their atoms when at rest. There is scarce any sect in philosophy has not a distinct set of terms, that others understand not; but yet this gibberish, which, in the weakness of human understanding, serves so well to palliate men's ignorance, and cover their errors, comes, by familiar use amongst those of the same tribe, to seem the most important part of language, and of all other the terms the most significant. And should aerial and ætherial vehicles come once, by the prevalency of that doctrine, to be generally received any where, no doubt those terms would make impressions on men's minds, so as to establish them in the persuasion of the reality of such things, as much as Peripatetic forms and intentional species have heretofore done.

Instance in matter.

§. 15. How much names taken for things are apt to mislead the understanding, the attentive reading of philosophical writers would abundantly discover; and that, perhaps, in words little suspected of any such misuse. I shall instance in one only, and that a very familiar one: how many intricate disputes have there been about matter, as if there were some such thing really in nature, distinct from body; as it is evident the word matter stands for an idea distinct from the idea of body? For if the ideas these two terms stood for were precisely the same, they might indifferently, in all places, be put for one another. But we see, that though it be proper to say, there is one matter of all bodies, one cannot say there is one body of all matters: we familiarly say, one body is bigger than another; but it sounds harsh (and I think is never used) to say one matter is bigger than another. Whence comes this then? viz. from hence, that though matter and body be not really distinct, but wherever there is the one there is the other; yet matter and body stand for two different conceptions, whereof the one is incomplete, and but a part of the other. For body

stands for a solid extended figured substance, whereof matter is but a partial and more confused conception, it seeming to me to be used for the substance and solidity of body, without taking in its extension and figure; and therefore it is that speaking of matter, we speak of it always as one, because in truth it expressly contains nothing but the idea of a solid substance, which is every where the same, every where uniform. This being our idea of matter, we no more conceive or speak of different matters in the world, than we do of different solidities; though we both conceive and speak of different bodies, because extension and figure are capable of variation. But since solidity cannot exist without extension and figure, the taking matter to be the name of something really existing under that precision, has no doubt produced those obscure and unintelligible discourses and disputes, which have filled the heads and books of philosophers concerning materia prima; which imperfection or abuse, how far it may concern a great many other general terms, I leave to be considered. This, I think, I may at least say, that we should have a great many fewer disputes in the world, if words were taken for what they are, the signs of our ideas only, and not for things themselves. For when we argue about matter, or any the like term, we truly argue only about the idea we express by that sound, whether that precise idea agree to any thing really existing in nature or no. And if men would tell what ideas they make their words stand for, there could not be half that obscurity or wrangling, in the search or support of truth, that there is.

This makes errors lasting.

§. 16. But whatever inconvenience follows from this mistake of words, this I am sure, that by constant and familiar use they charm men into notions far remote from the truth of things. It would be a hard matter to persuade any one, that the words which his father or schoolmaster, the parson of the parish, or such a reverend doctor used, signified nothing that really existed in nature; which, perhaps, is none of the least causes, that men are so hardly drawn to quit their mistakes, even in opinions

purely philosophical, and where they have no other interest but truth. For the words they have a long time been used to, remaining firm in their minds, it is no wonder that the wrong notions annexed to them should not be removed.

5. Setting them for what they cannot signify.

§. 17. Fifthly, another abuse of words, is the setting them in the place of things which they do or can by no means signify. We may observe, that in the general names of substances, whereof the nominal essences are only known to us, when we put them into propositions, and affirm or deny any thing about them, we do most commonly tacitly suppose, or intend they should stand for the real essence of a certain sort of substances. For when a man says gold is malleable, he means and would insinuate something more than this, that what I call gold is malleable, (though truly it amounts to no more) but would have this understood, viz. that gold, i. e. what has the real essence of gold, is malleable; which amounts to thus much, that malleableness depends on, and is inseparable from the real essence of gold. But a man not knowing wherein that real essence consists, the connexion in his mind of malleableness, is not truly with an essence he knows not, but only with the sound gold he puts for it. Thus, when we say, that "animal rationale" is, and "animal implume bipes latis unguibus" is not a good definition of a man; it is plain, we suppose the name man in this case to stand for the real essence of a species, and would signify, that a rational animal better described that real essence than a two-legged animal with broad nails, and without feathers. For else, why might not Plato as properly make the word ἄνθρωπος, or man, stand for his complex idea, made up of the idea of a body, distinguished from others by a certain shape and other outward appearances, as Aristotle make the complex idea, to which he gave the name ἄνθρωπος, or man, of body and the faculty of reasoning joined together; unless the name ἄνθρωπος, or man, were supposed to stand for something else than what it signifies; and to be put in the place of some other thing than the idea a man professes he would express by it?

§. 18. It is true, the names of substances would be much more useful, and propositions made in them much more certain, were the real essences of substances the ideas in our minds which those words signified. And it is for want of those real essences that our words convey so little knowledge or certainty in our discourses about them: and therefore the mind, to remove that imperfection as much as it can, makes them, by a secret supposition, to stand for a thing, having that real essence, as if thereby it made some nearer approaches to it. For though the word man or gold signify nothing truly but a complex idea of properties united together in one sort of substances: yet there is scarce any body in the use of these words, but often supposes each of those names to stand for a thing having the real essence, on which these properties depend. Which is so far from diminishing the imperfection of our words, that by a plain abuse it adds to it when we would make them stand for something, which not being in our complex idea, the name we use can no ways be the sign of.

v.g. Putting them for the real essences of substances.

§. 19. This shows us the reason why in mixed modes any of the ideas that make the composition of the complex one, being left out or changed, it is allowed to be another thing, i. e. to be of another species, it is plain in chance-medley, man-slaughter, murder, parricide, &c. The reason whereof is, because the complex idea signified by that name is the real as well as nominal essence; and there is no secret reference of that name to any other essence but that. But in substances it is not so. For though in that called gold one puts into his complex idea what another leaves out, and vice versa; yet men do not usually think that therefore the species is changed: because they secretly in their minds refer that name, and suppose it annexed to a real immutable essence of a thing existing, on which those properties depend. He that adds to his complex idea of gold that of fixedness and solubility in aq. regia, which he put not in it before, is not thought to have changed the species; but only to have a more perfect

Hence we think every change of our idea in substances not to change the species.

idea, by adding another simple idea, which is always in fact joined with those other, of which his former complex idea consisted. But this reference of the name to a thing, whereof we had not the idea, is so far from helping at all, that it only serves the more to involve us in difficulties. For by this tacit reference to the real essence of that species of bodies, the word gold (which by standing for a more or less perfect collection of simple ideas, serves to design that sort of body well enough in civil discourses) comes to have no signification at all, being put for somewhat, whereof we have no idea at all, and so can signify nothing at all, when the body itself is away. For however it may be thought all one; yet, if well considered, it will be found a quite different thing to argue about gold in name, and about a parcel in the body itself, v. g. a piece of leaf-gold laid before us; though in discourse we are fain to substitute the name for the thing.

The cause of the abuse, a supposition of nature's working always regularly.

§ 20. That which I think very much disposes men to substitute their names for the real essences of species, is the supposition before-mentioned, that nature works regularly in the production of things, and sets the boundaries to each of those species, by giving exactly the same real internal constitution to each individual, which we rank under one general name. Whereas any one who observes their different qualities, can hardly doubt, that many of the individuals, called by the same name, are, in their internal constitution, as different one from another as several of those which are ranked under different specifick names. This supposition, however, that the same precise and internal constitution goes always with the same specifick name, makes men forward to take those names for the representatives of those real essences, though indeed they signify nothing but the complex ideas they have in their minds when they use them. So that, if I may so say, signifying one thing, and being supposed for, or put in the place of another, they cannot but, in such a kind of use, cause a great deal of uncertainty in men's discourses; especially in those who have tho-

roughly imbibed the doctrine of substantial forms, whereby they firmly imagine the several species of things to be determined and distinguished.

§. 21. But however preposterous and absurd it be to make our names stand for ideas we have not, (or which is all one) essences that we know not, it being in effect to make our words the signs of nothing; yet it is evident to any one, who ever so little reflects on the use men make of their words, that there is nothing more familiar. When a man asks whether this or that thing he sees, let it be a drill, or a monstrous fœtus, be a man or no; it is evident, the question is not, whether that particular thing agree to his complex idea, expressed by the name man: but whether it has in it the real essence of a species of things, which he supposes his name man to stand for. In which way of using the names of substances, there are these false suppositions contained. This abuse contains two false suppositions.

First, that there are certain precise essences according to which nature makes all particular things, and by which they are distinguished into species. That every thing has a real constitution, whereby it is what it is, and on which its sensible qualities depend, is past doubt: but I think it has been proved, that this makes not the distinction of species, as we rank them; nor the boundaries of their names.

Secondly, this tacitly also insinuates, as if we had ideas of these proposed essences. For to what purpose else is it to inquire whether this or that thing have the real essence of the species man, if we did not suppose that there were such a specifick essence known? which yet is utterly false: and therefore such application of names, as would make them stand for ideas which we have not, must needs cause great disorder in discourses and reasonings about them, and be a great inconvenience in our communication by words.

§. 22. Sixthly, there remains yet another more general, though perhaps less observed abuse of words: and that is, that men having by a long and familiar use annexed to them certain ideas, they are apt to imagine 6. A supposition that words have a certain and evident signification.

so near and necessary a connexion between the names and the signification they use them in, that they forwardly suppose one cannot but understand what their meaning is; and therefore one ought to acquiesce in the words delivered, as if it were past doubt, that, in the use of those common received sounds, the speaker and hearer had necessarily the same precise ideas. Whence presuming, that when they have in discourse used any term, they have thereby, as it were, set before others the very thing they talked of; and so likewise taking the words of others, as naturally standing for just what they themselves have been accustomed to apply them to, they never trouble themselves to explain their own, or understand clearly others meaning. From whence commonly proceed noise and wrangling, without improvement or information; whilst men take words to be the constant regular marks of agreed notions, which in truth are no more but the voluntary and unsteady signs of their own ideas. And yet men think it strange, if in discourse, or (where it is often absolutely necessary) in dispute, one sometimes asks the meaning of their terms: though the arguings one may every day observe in conversation, make it evident, that there are few names of complex ideas which any two men use for the same just precise collection. It is hard to name a word which will not be a clear instance of this. Life is a term, none more familiar. Any one almost would take it for an affront to be asked what he meant by it. And yet if it comes in question, whether a plant, that lies ready formed in the seed, have life: whether the embryo in an egg before incubation, or a man in a swoon without sense or motion, be alive or no; it is easy to perceive that a clear distinct settled idea does not always accompany the use of so known a word as that of life is. Some gross and confused conceptions men indeed ordinarily have, to which they apply the common words of their language; and such a loose use of their words serves them well enough in their ordinary discourses or affairs. But this is not sufficient for philosophical inquiries. Knowledge and reasoning require precise determinate ideas. And though men will not be so importunately dull, as

not to understand what others say without demanding an explication of their terms; nor so troublesomely critical, as to correct others in the use of the words they receive from them; yet where truth and knowledge are concerned in the case, I know not what fault it can be to desire the explication of words, whose sense seems dubious; or why a man should be ashamed to own his ignorance, in what sense another man uses his words, since he has no other way of certainly knowing it, but by being informed. This abuse of taking words upon trust has no where spread so far, nor with so ill effects, as amongst men of letters. The multiplication and obstinacy of disputes, which have so laid waste the intellectual world, is owing to nothing more, than to this ill use of words. For though it be generally believed that there is great diversity of opinions in the volumes and variety of controversies the world is distracted with, yet the most I can find that the contending learned men of different parties do, in their arguings one with another, is, that they speak different languages. For I am apt to imagine, that when any of them quitting terms, think upon things, and know what they think, they think all the same; though perhaps what they would have, be different.

§. 23. To conclude this consideration of the imperfection and abuse of language; the ends of language in our discourse with others, being chiefly these three: first, to make known one man's thoughts or ideas to another; secondly, to do it with as much ease and quickness as possible; and, thirdly, thereby to convey the knowledge of things: language is either abused or deficient, when it fails of any of these three.

The ends of language: 1. To convey our ideas.

First, words fail in the first of these ends, and lay not open one man's ideas to another's view: 1. When men have names in their mouths without any determinate ideas in their minds, whereof they are the signs; or, 2. When they apply the common received names of any language to ideas, to which the common use of that language does not apply them: or, 3. When they apply

them very unsteadily, making them stand now for one, and by and by for another idea.

2. To do it with quickness.

§. 24. Secondly, men fail of conveying their thoughts with all the quickness and ease that may be, when they have complex ideas without having any distinct names for them. This is sometimes the fault of the language itself, which has not in it a sound yet applied to such a signification; and sometimes the fault of the man, who has not yet learned the name for that idea he would show another.

3. Therewith to convey the knowledge of things.

§. 25. Thirdly, there is no knowledge of things conveyed by men's words, when their ideas agree not to the reality of things. Though it be a defect, that has its original in our ideas, which are not so conformable to the nature of things, as attention, study, and application might make them; yet it fails not to extend itself to our words too, when we use them as signs of real beings, which yet never had any reality or existence.

How men's words fail in all these.

§. 26. First, he that hath words of any language, without distinct ideas in his mind to which he applies them, does, so far as he uses them in discourse, only make a noise without any sense or signification; and how learned soever he may seem by the use of hard words or learned terms, is not much more advanced thereby in knowledge, than he would be in learning, who had nothing in his study but the bare titles of books, without possessing the contents of them. For all such words, however put into discourse, according to the right construction of grammatical rules, or the harmony of well-turned periods, do yet amount to nothing but bare sounds, and nothing else.

§. 27. Secondly, he that has complex ideas, without particular names for them, would be in no better case than a bookseller, who had in his warehouse volumes, that lay there unbound, and without titles; which he could therefore make known to others, only by showing the loose sheets, and communicate them only by tale. This man is hindered in his discourse for want of words

to communicate his complex ideas, which he is therefore forced to make known by an enumeration of the simple ones that compose them; and so is fain often to use twenty words, to express what another man signifies in one.

§. 28. Thirdly, he that puts not constantly the same sign for the same idea, but uses the same words sometimes in one, and sometimes in another signification, ought to pass in the schools and conversation for as fair a man, as he does in the market and exchange, who sells several things under the same name.

§. 29. Fourthly, he that applies the words of any language to ideas different from those to which the common use of that country applies them, however his own understanding may be filled with truth and light, will not by such words be able to convey much of it to others, without defining his terms. For however the sounds are such as are familiarly known, and easily enter the ears of those who are accustomed to them; yet standing for other ideas than those they usually are annexed to, and are wont to excite in the mind of the hearers, they cannot make known the thoughts of him who thus uses them.

§. 30. Fifthly, he that imagined to himself substances such as never have been, and filled his head with ideas which have not any correspondence with the real nature of things, to which yet he gives settled and defined names; may fill his discourse, and perhaps another man's head, with the fantastical imaginations of his own brain, but will be very far from advancing thereby one jot in real and true knowledge.

§. 31. He that hath names without ideas, wants meaning in his words, and speaks only empty sounds. He that hath complex ideas without names for them, wants liberty and dispatch in his expressions, and is necessitated to use periphrases. He that uses his words loosely and unsteadily will either be not minded, or not understood. He that applies his names to ideas different from their common use, wants propriety in his language, and speaks gibberish. And he that hath the ideas of substances disagreeing with the real existence of things,

so far wants the materials of true knowledge in his understanding, and hath instead thereof chimeras.

How in substances.

§. 32. In our notions concerning substances, we are liable to all the former inconveniencies; v. g. he that uses the word tarantula, without having any imagination or idea of what it stands for, pronounces a good word; but so long means nothing at all by it. 2. He that in a new-discovered country shall see several sorts of animals and vegetables, unknown to him before, may have as true ideas of them, as of a horse or stag: but can speak of them only by a description, till he shall either take the names the natives call them by, or give them names himself. 3. He that uses the word body sometimes for pure extension, and sometimes for extension and solidity together, will talk very fallaciously. 4. He that gives the name horse to that idea, which common usage calls mule, talks improperly, and will not be understood. 5. He that thinks the name centaur stands for some real being, imposes on himself, and mistakes words for things.

How in modes and relations.

§. 33. In modes and relations generally we are liable only to the four first of these inconveniencies; viz. 1. I may have in my memory the names of modes, as gratitude or charity, and yet not have any precise ideas annexed in my thoughts to those names. 2. I may have ideas, and not know the names that belong to them; v. g. I may have the idea of a man's drinking till his colour and humour be altered, till his tongue trips, and his eyes look red, and his feet fail him; and yet not know, that it is to be called drunkenness. 3. I may have the ideas of virtues or vices, and names also, but apply them amiss: v. g. when I apply the name frugality to that idea which others call and signify by this sound, covetousness. 4. I may use any of those names with inconstancy. 5. But, in modes and relations, I cannot have ideas disagreeing to the existence of things: for modes being complex ideas, made by the mind at pleasure; and relation being but by way of considering or comparing two things together, and so also an idea of my

own making; these ideas can scarce be found to disagree with any thing existing, since they are not in the mind as the copies of things regularly made by nature, nor as properties inseparably flowing from the internal constitution or essence of any substance; but as it were patterns lodged in my memory, with names annexed to them, to denominate actions and relations by, as they come to exist. But the mistake is commonly in my giving a wrong name to my conceptions; and so using words in a different sense from other people, I am not understood, but am thought to have wrong ideas of them, when I give wrong names to them. Only if I put in my ideas of mixed modes or relations any inconsistent ideas together, I fill my head also with chimeras; since such ideas, if well examined, cannot so much as exist in the mind, much less any real being ever be denominated from them.

7. Figurative speech also an abuse of language.

§. 34. Since wit and fancy find easier entertainment in the world, than dry truth and real knowledge, figurative speeches and allusion in language will hardly be admitted as an imperfection or abuse of it. I confess in discourses where we seek rather pleasure and delight than information and improvement, such ornaments as are borrowed from them can scarce pass for faults. But yet if we would speak of things as they are, we must allow that all the art of rhetorick, besides order and clearness, all the artificial and figurative application of words eloquence hath invented, are for nothing else but to insinuate wrong ideas, move the passions, and thereby mislead the judgment, and so indeed are perfect cheats: and therefore however laudable or allowable oratory may render them in harangues and popular addresses, they are certainly, in all discourses that pretend to inform or instruct, wholly to be avoided; and where truth and knowledge are concerned, cannot but be thought a great fault, either of the language or person that makes use of them. What, and how various they are, will be superfluous here to take notice; the books of rhetorick which abound in the world, will instruct those who want to be informed; only I cannot but observe how little the pre-

servation and improvement of truth and knowledge is the care and concern of mankind: since the arts of fallacy are endowed and preferred. It is evident how much men love to deceive and be deceived, since rhetorick, that powerful instrument of error and deceit, has its established professors, is publickly taught, and has always been had in great reputation: and, I doubt not, but it will be thought great boldness, if not brutality in me, to have said thus much against it. Eloquence, like the fair sex, has too prevailing beauties in it, to suffer itself ever to be spoken against. And it is in vain to find fault with those arts of deceiving, wherein men find pleasure to be deceived.

CHAP. XI.

Of the Remedies of the foregoing Imperfections and Abuses.

They are worth seeking.

§ 1. THE natural and improved imperfections of languages we have seen above at large; and speech being the great bond that holds society together, and the common conduit whereby the improvements of knowledge are conveyed from one man, and one generation to another; it would well deserve our most serious thoughts to consider what remedies are to be found for the inconveniencies above-mentioned.

Are not easy.

§ 2. I am not so vain to think, that any one can pretend to attempt the perfect reforming the languages of the world, no not so much as of his own country, without rendering himself ridiculous. To require that men should use their words constantly in the same sense, and for none but determined and uniform ideas, would be to think that all men should have the same notions, and should talk of nothing but what they have clear and distinct ideas of; which is not to be expected by any one, who hath not vanity enough to imagine he can prevail with men to be very knowing or very silent. And he must be very little skilled in the

world, who thinks that a voluble tongue shall accompany only a good understanding; or that men's talking much or little should hold proportion only to their knowledge.

§. 3. But though the market and exchange must be left to their own ways of talking, and gossipings not be robbed of their ancient privilege; though the schools and men of argument would perhaps take it amiss to have any thing offered to abate the length, or lessen the number, of their disputes: yet methinks those who pretend seriously to search after or maintain truth, should think themselves obliged to study how they might deliver themselves without obscurity, doubtfulness, or equivocation, to which men's words are naturally liable, if care be not taken. *But yet necessary to philosophy.*

§. 4. For he that shall well consider the errors and obscurity, the mistakes and confusion, that are spread in the world by an ill use of words, will find some reason to doubt whether language, as it has been employed, has contributed more to the improvement or hindrance of knowledge amongst mankind. How many are there that, when they would think on things, fix their thoughts only on words, especially when they would apply their minds to moral matters? And who then can wonder, if the result of such contemplations and reasonings, about little more than sounds, whilst the ideas they annexed to them are very confused and very unsteady, or perhaps none at all; who can wonder, I say, that such thoughts and reasonings end in nothing but obscurity and mistake, without any clear judgment and knowledge? *Misuse of words the great cause of errors.*

§. 5. This inconvenience, in an ill use of words, men suffer in their own private meditations; but much more manifest are the disorders which follow from it, in conversation, discourse, and arguings with others. For language being the great conduit, whereby men convey their discoveries, reasonings, and knowledge, from one to another; he that makes an ill use of it, though he does not corrupt the fountains of knowledge, which are in things themselves; *Obstinacy.*

yet he does, as much as in him lies, break or stop the pipes, whereby it is distributed to the public use and advantage of mankind. He that uses words without any clear and steady meaning, what does he but lead himself and others into errors? And he that designedly does it, ought to be looked on as an enemy to truth and knowledge. And yet who can wonder, that all the sciences and parts of knowledge have been so overcharged with obscure and equivocal terms, and insignificant and doubtful expressions, capable to make the most attentive or quick-sighted very little or not at all the more knowing or orthodox; since subtilty, in those who make profession to teach or defend truth, hath passed so much for a virtue: a virtue, indeed, which consisting for the most part in nothing but the fallacious and illusory use of obscure or deceitful terms, is only fit to make men more conceited in their ignorance, and more obstinate in their errors.

And wrangling.

§. 6. Let us look into the books of controversy of any kind; there we shall see, that the effect of obscure, unsteady or equivocal terms, is nothing but noise and wrangling about sounds, without convincing or bettering a man's understanding. For if the idea be not agreed on betwixt the speaker and hearer, for which the words stand, the argument is not about things, but names. As often as such a word, whose signification is not ascertained betwixt them, comes in use, their understandings have no other object wherein they agree, but barely the sound; the things that they think on at that time, as expressed by that word, being quite different.

Instance, bat and bird.

§. 7. Whether a bat be a bird or no, is not a question; whether a bat be another thing than indeed it is, or have other qualities than indeed it has, for that would be extremely absurd to doubt of: but the question is, 1. Either between those that acknowledged themselves to have but imperfect ideas of one or both of this sort of things, for which these names are supposed to stand; and then it is a real inquiry concerning the name of a bird or a bat, to make their yet imperfect ideas of it more complete, by exa-

mining whether all the simple ideas, to which, combined together, they both give the name bird, be all to be found in a bat; but this is a question only of inquirers (not disputers) who neither affirm, nor deny, but examine. Or, 2. It is a question between disputants, whereof the one affirms, and the other denies, that a bat is a bird. And then the question is barely about the signification of one or both these words; in that they not having both the same complex ideas, to which they give these two names, one holds, and the other denies, that these two names may be affirmed one of another. Were they agreed in the signification of these two names, it were impossible they should dispute about them; for they would presently and clearly see (were that adjusted between them) whether all the simple ideas, of the more general name bird, were found in the complex ideas of a bat, or no; and so there could be no doubt whether a bat were a bird or no. And here I desire it may be considered, and carefully examined, whether the greatest part of the disputes in the world are not merely verbal, and about the signification of words; and whether if the terms they are made in were defined, and reduced in their signification (as they must be where they signify any thing) to determined collections of the simple ideas they do or should stand for, those disputes would not end of themselves, and immediately vanish. I leave it then to be considered, what the learning of disputation is, and how well they are employed for the advantage of themselves or others, whose business is only the vain ostentation of sounds; i. e. those who spend their lives in disputes and controversies. When I shall see any of those combatants strip all his terms of ambiguity and obscurity (which every one may do in the words he uses himself) I shall think him a champion for knowledge, truth and peace, and not the slave of vain-glory, ambition, or a party.

§. 8. To remedy the defects of speech before-mentioned to some degree, and to prevent the inconveniencies that follow from them, I imagine the observation of these following rules may be of use, till somebody better able shall judge it worth his while to think more

maturely on this matter, and oblige the world with his thoughts on it.

1. Remedy to use no word without an idea.

§. 8. First, a man shall take care to use no word without a signification, no name without an idea for which he makes it stand. This rule will not seem altogether needless, to any one who shall take the pains to recollect how often he has met with such words, as instinct, sympathy and antipathy, &c. in the discourse of others, so made use of, as he might easily conclude that those that used them had no ideas in their minds to which they applied them; but spoke them only as sounds, which usually served instead of reasons on the like occasions. Not but that these words, and the like, have very proper significations in which they may be used; but there being no natural connexion between any words and any ideas, these, and any other, may be learned by rote, and pronounced or writ by men, who have no ideas in their minds, to which they have annexed them, and for which they make them stand; which is necessary they should, if men would speak intelligibly even to themselves alone.

2. To have distinct ideas annexed to them in modes.

§. 9. Secondly, it is not enough a man uses his words as signs of some ideas: those he annexes them to, if they be simple, must be clear and distinct; if complex, must be determinate, i. e. the precise collection of simple ideas settled in the mind, with that sound annexed to it, as the sign of that precise determined collection, and no other. This is very necessary in names of modes, and especially moral words; which having no settled objects in nature, from whence their ideas are taken, as from their original, are apt to be very confused. Justice is a word in every man's mouth, but most commonly with a very undetermined loose signification: which will always be so, unless a man has in his mind a distinct comprehension of the component parts, that complex idea consists of: and if it be decompounded, must be able to resolve it still on, till he at last comes to the simple ideas that make it up: and unless this be done, a man makes an ill use of the word, let it be justice, for example, or any other. I do not say, a man

need stand to recollect and make this analysis at large, every time the word justice comes in his way: but this at least is necessary, that he have so examined the signification of that name, and settled the idea of all its parts in his mind, that he can do it when he pleases. If one, who makes his complex idea of justice to be such a treatment of the person or goods of another, as is according to law, hath not a clear and distinct idea what law is, which makes a part of his complex idea of justice; it is plain his idea of justice itself will be confused and imperfect. This exactness will, perhaps, be judged very troublesome; and therefore most men will think they may be excused from settling the complex ideas of mixed modes so precisely in their minds. But yet I must say, till this be done, it must not be wondered that they have a great deal of obscurity and confusion in their own minds, and a great deal of wrangling in their discourse with others.

And distinct and conformable in substances.

§. 10. In the names of substances, for a right use of them, something more is required than barely determined ideas. In these the names must also be conformable to things as they exist: but of this I shall have occasion to speak more at large by and by. This exactness is absolutely necessary in inquiries after philosophical knowledge, and in controversies about truth. And though it would be well too, if it extended itself to common conversation, and the ordinary affairs of life; yet I think that is scarce to be expected. Vulgar notions suit vulgar discourses; and both, though confused enough, yet serve pretty well the market and the wake. Merchants and lovers, cooks and taylors, have words wherewithal to dispatch their ordinary affairs; and so, I think, might philosophers and disputants too, if they had a mind to understand, and to be clearly understood.

3. Propriety.

§. 11. Thirdly, it is not enough that men have ideas, determined ideas, for which they make these signs stand; but they must also take care to apply their words as near as may be, to such ideas as common use has annexed them to. For words, especially of languages already framed, being no man's pri-

vate possession, but the common measure of commerce and communication, it is not for any one, at pleasure, to change the stamp they are current in, nor alter the ideas they are affixed to; or at least, when there is a necessity to do so, he is bound to give notice of it. Men's intentions in speaking are, or at least should be, to be understood; which cannot be without frequent explanations, demands, and other the like incommodious interruptions, where men do not follow common use. Propriety of speech is that which gives our thoughts entrance into other men's minds with the greatest ease and advantage; and therefore deserves some part of our care and study, especially in the names of moral words. The proper signification and use of terms is best to be learned from those, who in their writings and discourses appear to have had the clearest notions, and applied to them their terms with the exactest choice and fitness. This way of using a man's words, according to the propriety of the language, though it have not always the good fortune to be understood; yet most commonly leaves the blame of it on him, who is so unskilful in the language he speaks, as not to understand it, when made use of as it ought to be.

4. To make known their meaning.

§. 12. Fourthly, but because common use has not so visibly annexed any signification to words, as to make men know always certainly what they precisely stand for; and because men, in the improvement of their knowledge, come to have ideas different from the vulgar and ordinary received ones, for which they must either make new words (which men seldom venture to do, for fear of being thought guilty of affectation or novelty) or else must use old ones, in a new signification: therefore after the observation of the foregoing rules, it is sometimes necessary, for the ascertaining the signification of words, to declare their meaning; where either common use has left it uncertain and loose (as it has in most names of very complex ideas) or where the term, being very material in the discourse, and that upon which it chiefly turns, is liable to any doubtfulness or mistake.

§. 13. As the ideas men's words stand for, are of different sorts; so the way of making known the ideas they stand for, when there is occasion, is also different. For though defining be thought the proper way to make known the proper signification of words; yet there are some words that will not be defined, as there are others, whose precise meaning cannot be made known but by definition; and perhaps a third, which partake somewhat of both the other, as we shall see in the names of simple ideas, modes, and substances. And that three ways.

§. 14. First, when a man makes use of the name of any simple idea, which he perceives is not understood, or is in danger to be mistaken, he is obliged by the laws of ingenuity, and the end of speech, to declare his meaning, and make known what idea he makes it stand for. This, as has been shown, cannot be done by definition; and therefore, when a synonymous word fails to do it, there is but one of these ways left. First, sometimes the naming the subject, wherein that simple idea is to be found, will make its name to be understood by those who are acquainted with that subject, and know it by that name. So to make a countryman understand what "feuillemorte" colour signifies, it may suffice to tell him, it is the colour of withered leaves falling in autumn. Secondly, but the only sure way of making known the signification of the name of any simple idea is by presenting to his senses that subject, which may produce it in his mind, and make him actually have the idea that word stands for. 1. In simple ideas by synonymous terms, or showing.

§. 15. Secondly, mixed modes, especially those belonging to morality, being most of them such combinations of ideas, as the mind puts together of its own choice, and whereof there are not always standing patterns to be found existing; the signification of their names cannot be made known, as those of simple ideas, by any showing; but, in recompence thereof, may be perfectly and exactly defined. For they being combinations of several ideas, that the mind of man has arbitrarily put together, without re- 2. In mixed modes, by definition.

ference to any archetypes, men may, if they please, exactly know the ideas that go to each composition, and so both use these words in a certain and undoubted signification, and perfectly declare, when there is occasion, what they stand for. This, if well considered, would lay great blame on those, who make not their discourses about moral things very clear and distinct. For since the precise signification of the names of mixed modes, or, which is all one, the real essence of each species is to be known, they being not of nature's but man's making, it is a great negligence and perverseness to discourse of moral things with uncertainty and obscurity; which is more pardonable in treating of natural substances, where doubtful terms are hardly to be avoided, for a quite contrary reason, as we shall see by and by.

Morality capable of demonstration.

§. 16. Upon this ground it is, that I am bold to think, that morality is capable of demonstration, as well as mathematicks: since the precise real essence of the things moral words stand for may be perfectly known; and so the congruity and incongruity of the things themselves be certainly discovered; in which consists perfect knowledge. Nor let any one object, that the names of substances are often to be made use of in morality, as well as those of modes, from which will arise obscurity. For as to substances, when concerned in moral discourses, their divers natures are not so much inquired into, as supposed; v. g. when we say that man is subject to law, we mean nothing by man, but a corporeal rational creature: what the real essence or other qualities of that creature are, in this case, is no way considered. And therefore whether a child or changeling be a man in a physical sense, may amongst the naturalists be as disputable as it will, it concerns not at all the moral man, as I may call him, which is this immoveable unchangeable idea, a corporeal rational being. For were there a monkey, or any other creature to be found, that has the use of reason to such a degree as to be able to understand general signs, and to deduce consequences about general ideas, he would no doubt be subject to law, and in that sense be a man, how much soever he differed in shape

from others of that name. The names of substances, if they be used in them as they should, can no more disturb moral than they do mathematical discourses: where, if the mathematician speaks of a cube or globe of gold, or any other body, he has his clear settled idea which varies not, though it may by mistake be applied to a particular body to which it belongs not.

§. 17. This I have here mentioned by the by, to show of what consequence it is for men, in their names of mixed modes, and consequently in all their moral discourses, to define their words when there is occasion: since thereby moral knowledge may be brought to so great clearness and certainty. And it must be great want of ingenuity (to say no worse of it) to refuse to do it: since a definition is the only way whereby the precise meaning of moral words can be known; and yet a way whereby their meaning may be known certainly, and without leaving any room for any contest about it. And therefore the negligence or perverseness of mankind cannot be excused, if their discourses in morality be not much more clear than those in natural philosophy: since they are about ideas in the mind, which are none of them false or disproportionate: they having no external beings for the archetypes which they are referred to, and must correspond with. It is far easier for men to frame in their minds an idea which shall be the standard to which they will give the name justice, with which pattern so made, all actions that agree shall pass under that denomination; than, having seen Aristides, to frame an idea that shall in all things be exactly like him; who is as he is, let men make what idea they please of him. For the one, they need but know the combination of ideas that are put together in their own minds; for the other, they must inquire into the whole nature, and abstruse hidden constitution, and various qualities of a thing existing without them.

Definitions can make moral discourses clear.

§. 18. Another reason that makes the defining of mixed modes so necessary, especially of moral words, is what I mentioned a little before, viz. that it is the only way whereby the

And is the only way.

signification of the most of them can be known with certainty. For the ideas they stand for, being for the most part such whose component parts no where exist together, but scattered and mingled with others, it is the mind alone that collects them, and gives them the union of one idea: and it is only by words, enumerating the several simple ideas which the mind has united, that we can make known to others what their names stand for; the assistance of the senses in this case not helping us, by the proposal of sensible objects, to show the ideas which our names of this kind stand for, as it does often in the names of sensible simple ideas, and also to some degree in those of substances.

3. In substances, by showing and defining.

§. 19. Thirdly, for the explaining the signification of the names of substances, as they stand for the ideas we have of their distinct species, both the fore-mentioned ways, viz. of showing and defining, are requisite in many cases to be made use of. For there being ordinarily in each sort some leading qualities, to which we suppose the other ideas, which make up our complex idea of that species, annexed; we forwardly give the specific name to that thing, wherein that characteristical mark is found, which we take to be the most distinguishing idea of that species. These leading or characteristical (as I may call them) ideas, in the sorts of animals and vegetables, are (as has been before remarked, ch. vi. §. 29. and ch. ix. §. 15.) mostly figure, and in inanimate bodies, colour, and in some both together. Now,

Ideas of the leading qualities of substances are best got by showing.

§. 20. These leading sensible qualities are those which make the chief ingredients of our specific ideas, and consequently the most observable and invariable part in the definitions of our specific names, as attributed to sorts of substances coming under our knowledge. For though the sound man, in its own nature, be as apt to signify a complex idea made up of animality and rationality, united in the same subject, as to signify any other combination; yet used as a mark to stand for a sort of creatures we count of our own kind, perhaps, the outward shape is as necessary to be taken

into our complex idea, signified by the word man, as any other we find in it: and therefore why Plato's "animal implume bipes latis unguibus" should not be a good definition of the name man, standing for that sort of creatures, will not be easy to show: for it is the shape, as the leading quality, that seems more to determine that species, than a faculty of reasoning, which appears not at first, and in some never. And if this be not allowed to be so, I do not know how they can be excused from murder, who kill monstrous births, (as we call them) because of an unordinary shape, without knowing whether they have a rational soul or no; which can be no more discerned in a well-formed than ill-shaped infant, as soon as born. And who is it has informed us, that a rational soul can inhabit no tenement, unless it has just such a sort of frontispiece; or can join itself to, and inform no sort of body but one that is just of such an outward structure?

§. 21. Now these leading qualities are best made known by showing, and can hardly be made known otherwise. For the shape of an horse, or cassuary, will be but rudely and imperfectly imprinted on the mind by words; the sight of the animals doth it a thousand times better: and the idea of the particular colour of gold is not to be got by any description of it, but only by the frequent exercise of the eyes about it, as is evident in those who are used to this metal, who will frequently distinguish true from counterfeit, pure from adulterate, by the sight; where others (who have as good eyes, but yet by use have not got the precise nice idea of that peculiar yellow) shall not perceive any difference. The like may be said of those other simple ideas, peculiar in their kind to any substance; for which precise ideas there are no peculiar names. The particular ringing sound there is in gold, distinct from the sound of other bodies, has no particular name annexed to it, no more than the particular yellow that belongs to that metal.

The ideas of their powers best by definition.

§. 22. But because many of the simple ideas that make up our specific ideas of substances, are powers which lie not obvious to our senses in the things as they

ordinarily appear; therefore in the signification of our names of substances, some part of the signification will be better made known by enumerating those simple ideas, than by showing the substance itself. For he that to the yellow shining colour of gold got by sight, shall, from my enumerating them, have the ideas of great ductility, fusibility, fixedness, and solubility in aq. regia, will have a perfecter idea of gold, than he can have by seeing a piece of gold, and thereby imprinting in his mind only its obvious qualities. But if the formal constitution of this shining, heavy, ductile thing (from whence all these its properties flow) lay open to our senses, as the formal constitution, or essence of a triangle does, the signification of the word gold might as easily be ascertained as that of triangle.

A reflection on the knowledge of spirits.

§. 23. Hence we may take notice how much the foundation of all our knowledge of corporeal things lies in our senses. For how spirits, separate from bodies (whose knowledge and ideas of these things are certainly much more perfect than ours) know them, we have no notion, no idea at all. The whole extent of our knowledge or imagination reaches not beyond our own ideas limited to our ways of perception. Though yet it be not to be doubted that spirits of a higher rank than those immersed in flesh, may have as clear ideas of the radical constitution of substances, as we have of a triangle, and so perceive how all their properties and operations flow from thence: but the manner how they come by that knowledge exceeds our conceptions.

4. Ideas also of substances must be conformable to things.

§. 24. But though definitions will serve to explain the names of substances as they stand for our ideas; yet they leave them not without great imperfection as they stand for things. For our names of substances being not put barely for our ideas, but being made use of ultimately to represent things, and so are put in their place; their signification must agree with the truth of things as well as with men's ideas. And therefore in substances we are not always to rest in the ordinary complex idea, commonly received as the signification

of that word, but must go a little farther, and inquire into the nature and properties of the things themselves, and thereby perfect, as much as we can, our ideas of their distinct species; or else learn them from such as are used to that sort of things, and are experienced in them. For since it is intended their names should stand for such collections of simple ideas as do really exist in things themselves, as well as for the complex idea in other men's minds, which in their ordinary acceptation they stand for: therefore to define their names right, natural history is to be inquired into; and their properties are, with care and examination, to be found out. For it is not enough, for the avoiding inconveniencies in discourse and arguings about natural bodies and substantial things, to have learned from the propriety of the language, the common but confused, or very imperfect idea, to which each word is applied, and to keep them to that idea in our use of them: but we must, by acquainting ourselves with the history of that sort of things, rectify and settle our complex idea belonging to each specific name; and in discourse with others, (if we find them mistake us) we ought to tell what the complex idea is, that we make such a name stand for. This is the more necessary to be done by all those who search after knowledge and philosophical verity, in that children, being taught words whilst they have but imperfect notions of things, apply them at random, and without much thinking, and seldom frame determined ideas to be signified by them. Which custom (it being easy, and serving well enough for the ordinary affairs of life and conversation) they are apt to continue when they are men: and so begin at the wrong end, learning words first and perfectly, but make the notions to which they apply those words afterwards very overtly. By this means it comes to pass, that men speaking the proper language of their country, i. e. according to grammar rules of that language, do yet speak very improperly of things themselves; and, by their arguing one with another, make but small progress in the discoveries of useful truths, and the knowledge of things, as they are to be found in themselves, and not in our

imaginations; and it matters not much, for the improvement of our knowledge, how they are called.

Not easy to be made so.

§. 25. It were therefore to be wished, that men, versed in physical inquiries, and acquainted with the several sorts of natural bodies, would set down those simple ideas, wherein they observe the individuals of each sort constantly to agree. This would remedy a great deal of that confusion which comes from several persons applying the same name to a collection of a smaller or greater number of sensible qualities, proportionably as they have been more or less acquainted with, or accurate in examining the qualities of any sort of things which come under one denomination. But a dictionary of this sort containing, as it were, a natural history, requires too many hands, as well as too much time, cost, pains, and sagacity, ever to be hoped for; and till that be done, we must content ourselves with such definitions of the names of substances as explain the sense men use them in. And it would be well, where there is occasion, if they would afford us so much. This yet is not usually done; but men talk to one another, and dispute in words, whose meaning is not agreed between them, out of a mistake, that the significations of common words are certainly established, and the precise ideas they stand for perfectly known; and that it is a shame to be ignorant of them. Both which suppositions are false: no names of complex ideas having so settled determined significations, that they are constantly used for the same precise ideas. Nor is it a shame for a man not to have a certain knowledge of any thing, but by the necessary ways of attaining it; and so it is no discredit not to know what precise idea any sound stands for in another man's mind, without he declare it to me by some other way than barely using that sound; there being no other way, without such a declaration, certainly to know it. Indeed the necessity of communication by language brings men to an agreement in the signification of common words, within some tolerable latitude, that may serve for ordinary conversation: and so a man cannot be supposed wholly ignorant of the ideas which are annexed to words by com-

mon use, in a language familiar to him. But common use, being but a very uncertain rule, which reduces itself at last to the ideas of particular men, proves often but a very variable standard. But though such a dictionary, as I have above-mentioned, will require too much time, cost, and pains, to be hoped for in this age; yet methinks it is not unreasonable to propose, that words standing for things, which are known and distinguished by their outward shapes, should be expressed by little draughts and prints made of them. A vocabulary made after this fashion would perhaps, with more ease, and in less time, teach the true signification of many terms, especially in languages of remote countries or ages, and settle truer ideas in men's minds of several things, whereof we read the names in ancient authors, than all the large and laborious comments of learned criticks. Naturalists, that treat of plants and animals, have found the benefit of this way: and he that has had occasion to consult them, will have reason to confess, that he has a clearer idea of apium or ibex, from a little print of that herb or beast, than he could have from a long definition of the names of either of them. And so no doubt he would have of strigil and sistrum, if instead of curry-comb and cymbal, which are the English names dictionaries render them by, he could see stamped in the margin small pictures of these instruments, as they were in use amongst the ancients. "Toga, tunica, pallium," are words easily translated by gown, coat, and cloak: but we have thereby no more true ideas of the fashion of those habits amongst the Romans, than we have of the faces of the taylors who made them. Such things as these, which the eye distinguishes by their shapes, would be best let into the mind by draughts made of them, and more determine the signification of such words than any other words set for them, or made use of to define them. But this only by the by.

5. By constancy in their signification.

§. 26. Fifthly, if men will not be at the pains to declare the meaning of their words, and definitions of their terms are not to be had; yet this is the least that can be expected, that in all discourses, wherein one man pretends

to instruct or convince another, he should use the same word constantly in the same sense: if this were done (which nobody can refuse without great disingenuity) many of the books extant might be spared; many of the controversies in dispute would be at an end; several of those great volumes, swoln with ambiguous words, now used in one sense, and by and by in another, would shrink into a very narrow compass; and many of the philosophers (to mention no other) as well as poets works, might be contained in a nutshell.

When the variation is to be explained.

§. 27. But after all, the provision of words is so scanty in respect of that infinite variety of thoughts, that men, wanting terms to suit their precise notions, will, notwithstanding their utmost caution, be forced often to use the same word in somewhat different senses. And though in the continuation of a discourse, or the pursuit of an argument, there can be hardly room to digress into a particular definition, as often as a man varies the signification of any term; yet the import of the discourse will, for the most part, if there be no designed fallacy, sufficiently lead candid and intelligent readers into the true meaning of it: but where there is not sufficient to guide the reader, there it concerns the writer to explain his meaning, and show in what sense he there uses that term.

BOOK IV.

CHAP. I.

Of Knowledge in General.

Our knowledge conversant about our ideas.

§. 1. SINCE the mind, in all its thoughts and reasonings, hath no other immediate object but its own ideas, which it alone does or can contemplate; it is evident, that our knowledge is only conversant about them.

§. 2. Knowledge then seems to me to be nothing but the perception of the connexion and agreement, or disagreement and repugnancy, of any of our ideas. In this alone it consists. Where this perception is, there is knowledge; and where it is not, there, though we may fancy, guess, or believe, yet we always come short of knowledge. For when we know that white is not black, what do we else but perceive that these two ideas do not agree? When we possess ourselves with the utmost security of the demonstration, that the three angles of a triangle are equal to two right ones, what do we more but perceive, that equality to two right ones does necessarily agree to, and is inseparable from the three angles of a triangle *?

Knowledge is the perception of the agreement or disagreement of two ideas.

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* The placing of certainty, as Mr. Locke does, in the perception of the agreement or disagreement of our ideas, the bishop of Worcester suspects may be of dangerous consequence to that article of faith which he has endeavoured to defend; to which Mr. Locke answers, † since your lordship hath not, as I remember, shown, or gone about to show, how this proposition, viz. that certainty consists in the perception of the agreement or disagreement of two ideas, is opposite or inconsistent with that article of faith which your lordship has endeavoured to defend; it is plain, it is but your lordship's fear, that it may be of dangerous consequence to it, which, as I humbly conceive, is no proof that it is any way inconsistent with that article.

Nobody, I think, can blame your lordship, or any one else, for being concerned for any article of the christian faith; but if that concern (as it may, and as we know it has done) makes any one apprehend danger, where no danger is, are we, therefore, to give up and condemn any proposition, because any one, though of the first rank and magnitude, fears it may be of dangerous consequence to any truth of religion, without showing that it is so? If such fears be the measures whereby to judge of truth and falsehood, the affirming that there are antipodes would be still a heresy; and the doctrine of the motion of the earth must be rejected, as overthrowing the truth of the scripture; for of that dangerous consequence it has been apprehended to be, by many learned and pious divines, out of their great concern for religion. And yet, notwithstanding those great apprehensions of what dangerous consequence it might be, it is now universally received by learned men, as an undoubted truth; and writ for by some, whose belief of the scripture is not at all questioned; and particularly, very lately, by a divine of the church of England, with great strength of reason, in his wonderfully ingenious New Theory of the Earth.

† In his 2d letter to the bishop of Worcester.

This agreement fourfold.

§. 3. But to understand a little more distinctly wherein this agreement or disagreement consists, I think we may reduce it all to these four sorts:

1. Identity, or diversity.
2. Relation.
3. Co-existence, or necessary connexion.
4. Real existence.

1. Of identity or diversity.

§. 4. First, as to the first sort of agreement or disagreement, viz. identity or diversity. It is the first act of the mind, when it has any sentiments or ideas at all, to perceive its ideas; and so far as it perceives them, to know each what it is, and thereby also to perceive their difference, and that one is not another. This is so abso-

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The reason your lordship gives of your fears, that it may be of such dangerous consequence to that article of faith which your lordship endeavours to defend, though it occur in more places than one, is only this, viz. That it is made use of by ill men to do mischief, i. e. to oppose that article of faith which your lordship hath endeavoured to defend. But, my lord, if it be a reason to lay by any thing as bad, because it is, or may be used to an ill purpose, I know not what will be innocent enough to be kept. Arms, which were made for our defence, are sometimes made use of to do mischief; and yet they are not thought of dangerous consequence for all that. Nobody lays by his sword and pistols, or thinks them of such dangerous consequence as to be neglected, or thrown away, because robbers, and the worst of men, sometimes make use of them, to take away honest men's lives or goods. And the reason is, because they were designed, and will serve to preserve them. And who knows but this may be the present case? If your lordship thinks, that placing of certainty in the perception of the agreement or disagreement of ideas be to be rejected as false, because you apprehend it may be of dangerous consequence to that article of faith: on the other side, perhaps others, with me, may think it a defence against error, and so (as being of good use) to be received and adhered to.

I would not, my lord, be hereby thought to set up my own, or any one's judgment against your lordship's. But I have said this only to show, whilst the argument lies for or against the truth of any proposition, barely in an imagination that it may be of consequence to the supporting or overthrowing of any remote truth; it will be impossible, that way, to determine of the truth or falsehood of that proposition. For imagination will be set up against imagination, and the stronger probably will be against your lordship; the strongest imaginations being usually in the weakest heads. The only way, in this case, to put it past doubt, is to show the inconsistency of the two propositions; and then it will be seen, that one overthrows the other; the true, the false one.

lutely necessary, that without it there could be no knowledge, no reasoning, no imagination, no distinct thoughts, at all. By this the mind clearly and infallibly perceives each idea to agree with itself, and to be what it is; and all distinct ideas to disagree, i. e. the one not to be the other: and this it does without pains, labour, or deduction; but at first view, by its natural power of perception and distinction. And though men of art have reduced this into those general rules, "what is, is;" and "it is impossible for the same thing to be and not to be;" for ready application in all cases, wherein there may be occasion to reflect on it; yet it is certain, that the first exercise of this faculty is about particular ideas. A man infallibly knows, as soon as ever he has them in his mind, that the ideas he calls white and round, are

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Your lordship says, indeed, this is a new method of certainty. I will not say so myself, for fear of deserving a second reproof from your lordship, for being too forward to assume to myself the honour of being an original. But this, I think, gives me occasion, and will excuse me from being thought impertinent, if I ask your lordship whether there be any other, or older method of certainty? and what it is? For if there be no other, nor older than this, either this was always the method of certainty, and so mine is no new one; or else the world is obliged to me for this new one, after having been so long in the want of so necessary a thing as a method of certainty. If there be an older, I am sure your lordship cannot but know it: your condemning mine as new, as well as your thorough insight into antiquity, cannot but satisfy every body that you do. And therefore to set the world right in a thing of that great concernment, and to overthrow mine, and thereby prevent the dangerous consequence there is in my having unreasonably started it, will not, I humbly conceive, misbecome your lordship's care of that article you have endeavoured to defend, nor the good-will you bear to truth in general. For I will be answerable for myself, that I shall; and I think I may be for all others, that they all will give off the placing of certainty in the perception of the agreement or disagreement of ideas, if your lordship will be pleased to show, that it lies in any thing else.

But truly, not to ascribe to myself an invention of what has been as old as knowledge is in the world, I must own I am not guilty of what your lordship is pleased to call starting new methods of certainty. Knowledge, ever since there has been any in the world, has consisted in one particular action in the mind; and so, I conceive, will continue to do to the end of it. And to start new methods of knowledge, or certainty, (for they are to me the same thing) i. e. to find out and propose new methods of attaining knowledge, either with more ease and quickness, or in things yet unknown, is what I think nobody could blame: but this is not that which your lordship here means, by new methods of certainty. Your

the very ideas they are, and that they are not other ideas which he calls red or square. Nor can any maxim or proposition in the world make him know it clearer or surer than he did before, and without any such general rule. This then is the first agreement or disagreement, which the mind perceives in its ideas; which it always perceives at first sight: and if there ever happen any doubt about it, it will always be found to be about the names, and not the ideas themselves, whose identity and diversity will always be perceived, as soon and clearly as the ideas themselves are; nor can it possibly be otherwise.

2. Relative. §. 5. Secondly, the next sort of agreement or disagreement, the mind perceives in any of its ideas, may, I think, be called relative, and is nothing but the perception of the relation between

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lordship, I think, means by it, the placing of certainty in something, wherein either it does not consist, or else wherein it was not placed before now; if this be to be called a new method of certainty. As to the latter of these, I shall know whether I am guilty or no, when your lordship will do me the favour to tell me, wherein it was placed before: which your lordship knows I professed myself ignorant of, when I writ my book, and so I am still. But if starting new methods of certainty, be the placing of certainty in something wherein it does not consist; whether I have done that or no, I must appeal to the experience of mankind.

There are several actions of men's minds, that they are conscious to themselves of performing, as willing, believing, knowing, &c. which they have so particular sense of, that they can distinguish them one from another; or else they could not say, when they willed, when they believed, and when they knew any thing. But though these actions were different enough from one another, not to be confounded by those who spoke of them, yet nobody, that I had met with, had, in their writings, particularly set down wherein the act of knowing precisely consisted.

To this reflection upon the actions of my own mind the subject of my Essay concerning Human Understanding naturally led me; wherein if I have done any thing new, it has been to describe to others, more particularly than had been done before, what it is their minds do when they perform that action which they call knowing; and if, upon examination, they observe I have given a true account of that action of their minds in all the parts of it, I suppose it will be in vain to dispute against what they find and feel in themselves. And if I have not told them right and exactly what they find and feel in themselves, when their minds perform the act of knowing, what I have said will be all in vain; men will not be persuaded against their senses. Knowledge is an internal perception of their minds; and if, when they reflect on it, they find it is not what I have said it is, my groundless conceit will not be hearkened to, but be exploded by every body, and die of itself: and nobody need to be at any pains to

any two ideas, of what kind soever, whether substances, modes, or any other. For since all distinct ideas must eternally be known not to be the same, and so be universally and constantly denied one of another, there could be no room for any positive knowledge at all, if we could not perceive any relation between our ideas, and find out the agreement or disagreement they have one with another, in several ways the mind takes of comparing them.

§. 6. Thirdly, the third sort of agreement, or disagreement, to be found in our ideas, which the perception of the mind is employed about, is co-existence, or non co-existence in the same subject; and this belongs particularly to substances. Thus when we pronounce concerning gold

3. Of co-existence.

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drive it out of the world. So impossible is it to find out, or start new methods of certainty, or to have them received, if any one places it in any thing, but in that wherein it really consists: much less can any one be in danger to be misled into error, by any such new, and to every one visibly senseless project. Can it be supposed, that any one could start a new method of seeing, and persuade men thereby, that they do not see what they do see? Is it to be feared that any one can cast such a mist over their eyes, that they should not know when they see, and so be led out of their way by it?

Knowledge, I find in myself, and I conceive in others, consists in the perception of the agreement or disagreement of the immediate objects of the mind in thinking, which I call ideas: but whether it does so in others or no, must be determined by their own experience, reflecting upon the action of their mind in knowing; for that I cannot alter, nor, I think, they themselves. But whether they will call those immediate objects of their minds in thinking ideas or no, is perfectly in their own choice. If they dislike that name, they may call them notions or conceptions, or how they please; it matters not, if they use them so as to avoid obscurity and confusion. If they are constantly used in the same and a known sense, every one has the liberty to please himself in his terms; there lies neither truth, nor error, nor science, in that; though those that take them for things, and not for what they are, bare arbitrary signs of our ideas, make a great deal ado often about them; as if some great matter lay in the use of this or that sound. All that I know, or can imagine of difference about them, is that those words are always best, whose significations are best known in the sense they are used; and so are least apt to breed confusion.

My lord, your lordship hath been pleased to find fault with my use of the new term, ideas, without telling me a better name for the immediate objects of the mind in thinking. Your lordship also has been pleased to find fault with my definition of knowledge, without doing me the favour

that it is fixed, our knowledge of this truth amounts to no more but this, that fixedness, or a power to remain in the fire unconsumed, is an idea that always accompanies, and is joined with that particular sort of yellowness, weight, fusibility, malleableness, and solubility in aq. regia, which make our complex idea, signified by the word gold.

4. Of real existence.

§. 7. Fourthly, the fourth and last sort is that of actual and real existence agreeing to any idea. Within these four sorts of agreement or disagreement, is, I suppose, contained all the knowledge we have, or are capable of: for all the inquiries we can make concerning any of our ideas, all that we know or can affirm concerning any of them, is, that it is, or is not, the same with some other; that it

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to give me a better. For it is only about my definition of knowledge that all this stir concerning certainty is made. For, with me, to know and to be certain, is the same thing; what I know, that I am certain of; and what I am certain of, that I know. What reaches to knowledge, I think may be called certainty; and what comes short of certainty, I think cannot be called knowledge; as your lordship could not but observe in the 18th section of chap. 4. of my 4th book, which you have quoted.

My definition of knowledge stands thus: "knowledge seems to me to be nothing but the perception of the connexion and agreement, or disagreement and repugnancy of any of our ideas." This definition your lordship dislikes, and apprehends it may be of dangerous consequence as to that article of christian faith which your lordship hath endeavoured to defend. For this there is a very easy remedy: it is but for your lordship to set aside this definition of knowledge by giving us a better, and this danger is over. But your lordship chooses rather to have a controversy with my book for having it in it, and to put me upon the defence of it; for which I must acknowledge myself obliged to your lordship for affording me so much of your time, and for allowing me the honour of conversing so much with one so far above me in all respects.

Your lordship says, it may be of dangerous consequence to that article of christian faith which you have endeavoured to defend. Though the laws of disputing allow bare denial as a sufficient answer to sayings, without any offer of a proof: yet, my lord, to show how willing I am to give your lordship all satisfaction, in what you apprehend may be of dangerous consequence in my book, as to that article, I shall not stand still sullenly, and put your lordship upon the difficulty of showing wherein that danger lies; but shall on the other side, endeavour to show your lordship that that definition of mine, whether true or false, right or wrong, can be of no dangerous consequence to that article of faith. The reason which I shall offer for it, is this: because it can be of no consequence to it at all.

does or does not, always co-exist with some other idea in the same subject; that it has this or that relation with some other idea; or that it has a real existence without the mind. Thus blue is not yellow; is of identity: two triangles upon equal bases between two parallels are equal; is of relation: iron is susceptible of magnetical impressions; is of co-existence: God is; is of real existence. Though identity and co-existence are truly nothing but relations, yet they are such peculiar ways of agreement or disagreement of our ideas, that they deserve well to be considered as distinct heads, and not under relation in general; since they are so different grounds of affirmation and negation, as will easily appear to any one, who will but reflect on what is said in

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That which your lordship is afraid it may be dangerous to, is an article of faith: that which your lordship labours and is concerned for, is the certainty of faith. Now, my lord, I humbly conceive the certainty of faith, if your lordship thinks fit to call it so, has nothing to do with the certainty of knowledge. As to talk of the certainty of faith, seems all one to me, as to talk of the knowledge of believing, a way of speaking not easy to me to understand.

Place knowledge in what you will; start what new methods of certainty you please, that are apt to leave men's minds more doubtful than before; place certainty on such ground as will leave little or no knowledge in the world: (for these are the arguments your lordship uses against my definition of knowledge) this shakes not at all, nor in the least concerns the assurance of faith; that is quite distinct from it, neither stands nor falls with knowledge.

Faith stands by itself, and upon grounds of its own; nor can be removed from them, and placed on those of knowledge. Their grounds are so far from being the same, or having any thing common, that when it is brought to certainty, faith is destroyed; it is knowledge then, and faith no longer.

With what assurance soever of believing I assent to any article of faith, so that I stedfastly venture my all upon it, it is still but believing. Bring it to certainty, and it ceases to be faith. I believe that Jesus Christ was crucified, dead, and buried, rose again the third day from the dead, and ascended into heaven: let now such methods of knowledge or certainty be started, as leave men's minds more doubtful than before; let the grounds of knowledge be resolved into what any one pleases, it touches not my faith; the foundation of that stands as sure as before and cannot, be at all shaken by it; and one may as well say, that any thing that weakens the sight, or casts a mist before the eyes, endangers the hearing; as that any thing which alters the nature of knowledge (if that could be done) should be of dangerous consequence to an article of faith.

several places of this essay. I should not proceed to examine the several degrees of our knowledge, but that it is necessary first to consider the different acceptations of the word knowledge.

Knowledge actual or habitual.

§. 8. There are several ways wherein the mind is possessed of truth, each of which is called knowledge.

1. There is actual knowledge which is the present view the mind has of the agreement or disagreement of any of its ideas, or of the relation they have one to another.

2. A man is said to know any proposition, which having been once laid before his thoughts, he evidently perceived the agreement or disagreement of the ideas whereof it consists; and so lodged it in his memory, that whenever that proposition comes again to be reflected on, he, without doubt or hesitation, embraces the right side, assents to, and is certain of the truth of it. This, I think, one may call habitual knowledge: and thus a man may be said to know all those truths which are lodged in his memory, by a foregoing, clear and full perception, whereof the mind is assured past doubt, as often as it has occasion to reflect on them. For our finite understandings being able to think clearly and distinctly but on one thing at once, if men had no knowledge of any more than what they actually thought on, they would all be very ignorant; and he that knew most, would know but one truth, that being all he was able to think on at one time.

Whether then I am or am not mistaken, in the placing certainty in the perception of the agreement or disagreement of ideas; whether this account of knowledge be true or false, enlarges or straitens the bounds of it more than it should; faith still stands upon its own basis, which is not at all altered by it; and every article of that has just the same unmoved foundation, and the very same credibility, that it had before. So that, my lord, whatever I have said about certainty, and how much soever I may be out in it, if I am mistaken, your lordship has no reason to apprehend any danger to any article of faith from thence; every one of them stands upon the same bottom it did before, out of the reach of what belongs to knowledge and certainty. And thus much of my way of certainty by ideas; which, I hope, will satisfy your lordship how far it is from being dangerous to any article of the christian faith whatsoever.

§. 9. Of habitual knowledge, there are also, vulgarly speaking, two degrees:

Habitual knowledge twofold.

First, the one is of such truths laid up in the memory, as whenever they occur to the mind, it actually perceives the relation is between those ideas. And this is in all those truths, whereof we have an intuitive knowledge; where the ideas themselves, by an immediate view, discover their agreement or disagreement one with another.

Secondly, the other is of such truths whereof the mind having been convinced, it retains the memory of the conviction, without the proofs. Thus a man that remembers certainly that he once perceived the demonstration, that the three angles of a triangle are equal to two right ones, is certain that he knows it, because he cannot doubt the truth of it. In his adherence to a truth, where the demonstration by which it was at first known is forgot, though a man may be thought rather to believe his memory than really to know, and this way of entertaining a truth seemed formerly to me like something between opinion and knowledge; a sort of assurance which exceeds bare belief, for that relies on the testimony of another: yet upon a due examination I find it comes not short of perfect certainty, and is in effect true knowledge. That which is apt to mislead our first thoughts into a mistake in this matter, is, that the agreement or disagreement of the ideas in this case is not perceived, as it was at first, by an actual view of all the intermediate ideas, whereby the agreement or disagreement of those in the proposition was at first perceived; but by other intermediate ideas, that show the agreement or disagreement of the ideas contained in the proposition whose certainty we remember. For example, in this proposition, that the three angles of a triangle are equal to two right ones, one who has seen and clearly perceived the demonstration of this truth, knows it to be true, when that demonstration is gone out of his mind; so that at present it is not actually in view, and possibly cannot be recollected: but he knows it in a different way from what he did before. The agreement of the two ideas joined in that proposition is per-

ceived, but it is by the intervention of other ideas than those which at first produced that perception. He remembers, i. e. he knows (for remembrance is but the reviving of some past knowledge) that he was once certain of the truth of this proposition, that the three angles of a triangle are equal to two right ones. The immutability of the same relations between the same immutable things, is now the idea that shows him, that if the three angles of a triangle were once equal to two right ones, they will always be equal to two right ones. And hence he comes to be certain, that what was once true in the case, is always true; what ideas once agreed, will always agree; and consequently what he once knew to be true, he will always know to be true; as long as he can remember that he once knew it. Upon this ground it is, that particular demonstrations in mathematicks afford general knowledge. If then the perception that the same ideas will eternally have the same habitudes and relations, be not a sufficient ground of knowledge, there could be no knowledge of general propositions in mathematicks; for no mathematical demonstration would be any other than particular: and when a man had demonstrated any proposition concerning one triangle or circle, his knowledge would not reach beyond that particular diagram. If he would extend it further, he must renew his demonstration in another instance, before he could know it to be true in another like triangle, and so on; by which means one could never come to the knowledge of any general propositions. Nobody, I think, can deny that Mr. Newton certainly knows any propositions that he now at any time reads in his book, to be true; though he has not in actual view that admirable chain of intermediate ideas, whereby he at first discovered it to be true. Such a memory as that, able to retain such a train of particulars, may be well thought beyond the reach of human faculties; when the very discovery, perception, and laying together that wonderful connexion of ideas, is found to surpass most readers comprehension. But yet it is evident, the author himself knows the proposition to be true, remembering he once saw the connexion of those

ideas, as certainly as he knows such a man wounded another, remembering that he saw him run him through. But because the memory is not always so clear as actual perception, and does in all men more or less decay in length of time, this amongst other differences is one, which shows that demonstrative knowledge is much more imperfect than intuitive, as we shall see in the following chapter.

CHAP. II.

Of the Degrees of our Knowledge.

§. 1. ALL our knowledge consisting, as I have said, in the view the mind has of its own ideas, which is the utmost light and greatest certainty we, with our faculties, and in our way of knowledge, are capable of; it may not be amiss to consider a little the degrees of its evidence. The different clearness of our knowledge seems to me to lie in the different way of perception the mind has of the agreement or disagreement of any of its ideas. For if we reflect on our own ways of thinking, we shall find that sometimes the mind perceives the agreement or disagreement of two ideas immediately by themselves, without the intervention of any other: and this, I think, we may call intuitive knowledge. For in this the mind is at no pains of proving or examining, but perceives the truth, as the eye doth light, only by being directed towards it. Thus the mind perceives, that white is not black, that a circle is not a triangle, that three are more than two, and equal to one and two. Such kind of truths the mind perceives at the first sight of the ideas together, by bare intuition, without the intervention of any other idea; and this kind of knowledge is the clearest and most certain, that human frailty is capable of. This part of knowledge is irresistible, and like bright sun-shine forces itself immediately to be perceived, as soon as ever the mind turns its view that way; Intuitive.

and leaves no room for hesitation, doubt, or examination, but the mind is presently filled with the clear light of it. It is on this intuition that depends all the certainty and evidence of all our knowledge; which certainty every one finds to be so great, that he cannot imagine, and therefore not require a greater: for a man cannot conceive himself capable of a greater certainty, than to know that any idea in his mind is such as he perceives it to be; and that two ideas wherein he perceives a difference, are different and not precisely the same. He that demands a greater certainty than this, demands he knows not what, and shows only that he has a mind to be a sceptick, without being able to be so. Certainty depends so wholly on this intuition, that in the next degree of knowledge, which I call demonstrative, this intuition is necessary in all the connexions of the intermediate ideas, without which we cannot attain knowledge and certainty.

Demonstrative.

§. 2. The next degree of knowledge is, where the mind perceives the agreement or disagreement of any ideas, but not immediately. Though wherever the mind perceives the agreement or disagreement of any of its ideas, there be certain knowledge; yet it does not always happen, that the mind sees that agreement or disagreement which there is between them, even where it is discoverable: and in that case remains in ignorance, and at most gets no farther than a probable conjecture. The reason why the mind cannot always perceive presently the agreement or disagreement of two ideas, is, because those ideas, concerning whose agreement or disagreement the inquiry is made, cannot by the mind be so put together as to show it. In this case then, when the mind cannot so bring its ideas together, as by their immediate comparison, and as it were juxta-position or application one to another, to perceive their agreement or disagreement, it is fain, by the intervention of other ideas (one or more, as it happens) to discover the agreement or disagreement which it searches; and this is that which we call reasoning. Thus the mind being willing to know the agreement or disagreement in bigness, be-

tween the three angles of a triangle and two right ones, cannot by an immediate view and comparing them do it: because the three angles of a triangle cannot be brought at once, and be compared with any one or two angles; and so of this the mind has no immediate, no intuitive knowledge. In this case the mind is fain to find out some other angles, to which the three angles of a triangle have an equality; and, finding those equal to two right ones, comes to know their equality to two right ones.

Depends on proofs.

§. 3. Those intervening ideas which serve to show the agreement of any two others, are called proofs; and where the agreement and disagreement is by this means plainly and clearly perceived, it is called demonstration, it being shown to the understanding, and the mind made to see that it is so. A quickness in the mind to find out these intermediate ideas (that shall discover the agreement or disagreement of any other) and to apply them right, is, I suppose, that which is called sagacity.

But not so easy.

§. 4. This knowledge by intervening proofs, though it be certain, yet the evidence of it is not altogether so clear and bright, nor the assent so ready, as in intuitive knowledge. For though, in demonstration, the mind does at last perceive the agreement or disagreement of the ideas it considers; yet it is not without pains and attention: there must be more than one transient view to find it. A steady application and pursuit are required to this discovery: and there must be a progression by steps and degrees, before the mind can in this way arrive at certainty, and come to perceive the agreement or repugnancy between two ideas that need proofs and the use of reason to show it.

Not without precedent doubt.

§. 5. Another difference between intuitive and demonstrative knowledge is, that though in the latter all doubt be removed, when by the intervention of the intermediate ideas the agreement or disagreement is perceived; yet before the demonstration there was a doubt, which in intuitive knowledge cannot happen to the mind, that has its

faculty of perception left to a degree capable of distinct ideas, no more than it can be a doubt to the eye (that can distinctly see white and black) whether this ink and this paper be all of a colour. If there be sight in the eyes, it will at first glimpse, without hesitation, perceive the words printed on this paper different from the colour of the paper: and so if the mind have the faculty of distinct perceptions, it will perceive the agreement or disagreement of those ideas that produce intuitive knowledge. If the eyes have lost the faculty of seeing, or the mind of perceiving, we in vain inquire after the quickness of sight in one, or clearness of perception in the other.

Not so clear.

§. 6. It is true the perception produced by demonstration is also very clear, yet it is often with a great abatement of that evident lustre and full assurance, that always accompany that which I call intuitive; like a face reflected by several mirrors one to another, where as long as it retains the similitude and agreement with the object, it produces a knowledge; but it is still in every successive reflection with a lessening of that perfect clearness and distinctness, which is in the first, till at last, after many removes, it has a great mixture of dimness, and is not at first sight so knowable, especially to weak eyes. Thus it is with knowledge made out by a long train of proof.

Each step must have intuitive evidence.

§. 7. Now, in every step reason makes in demonstrative knowledge, there is an intuitive knowledge of that agreement or disagreement, it seeks with the next intermediate idea, which it uses as a proof: for if it were not so, that yet would need a proof; since without the perception of such agreement or disagreement, there is no knowledge produced. If it be perceived by itself, it is intuitive knowledge: if it cannot be perceived by itself, there is need of some intervening idea, as a common measure to show their agreement or disagreement. By which it is plain, that every step in reasoning that produces knowledge, has intuitive certainty; which when the mind perceives, there is no more required, but to remember it to make the agreement or disagreement of

the ideas, concerning which we inquire, visible and certain. So that to make any thing a demonstration, it is necessary to perceive the immediate agreement of the intervening ideas, whereby the agreement or disagreement of the two ideas under examination (whereof the one is always the first, and the other the last in the account) is found. This intuitive perception of the agreement or disagreement of the intermediate ideas, in each step and progression of the demonstration, must also be carried exactly in the mind, and a man must be sure that no part is left out: which because in long deductions, and the use of many proofs, the memory does not always so readily and exactly retain; therefore it comes to pass, that this is more imperfect than intuitive knowledge, and men embrace often falsehood for demonstrations.

Hence the mistake "ex præcognitis & præconcessis."

§. 8. The necessity of this intuitive knowledge, in each step of scientifical or demonstrative reasoning, gave occasion, I imagine, to that mistaken axiom, that all reasoning was "ex præcognitis & præconcessis;" which how far it is mistaken, I shall have occasion to show more at large, when I come to consider propositions, and particularly those propositions which are called maxims; and to show that it is by a mistake, that they are supposed to be the foundations of all our knowledge and reasonings.

Demonstration not limited to quantity.

§. 9. It has been generally taken for granted, that mathematicks alone are capable of demonstrative certainty: but to have such an agreement or disagreement, as may intuitively be perceived, being, as I imagine, not the privilege of the ideas of number, extension, and figure alone, it may possibly be the want of due method and application in us, and not of sufficient evidence in things, that demonstration has been thought to have so little to do in other parts of knowledge, and been scarce so much as aimed at by any but mathematicians. For whatever ideas we have, wherein the mind can perceive the immediate agreement or disagreement that is between them, there the mind is capable of intuitive knowledge; and where it can perceive the agreement or disagree-

ment of any two ideas, by an intuitive perception of the agreement or disagreement they have with any intermediate ideas, there the mind is capable of demonstration, which is not limited to ideas of extension, figure, number, and their modes.

Why it has been so thought.

§. 10. The reason why it has been generally sought for, and supposed to be only in those, I imagine has been not only the general usefulness of those sciences; but because, in comparing their equality or excess, the modes of numbers have every the least difference very clear and perceivable; and though in extension, every the least excess is not so perceptible, yet the mind has found out ways to examine and discover demonstratively the just equality of two angles, or extensions, or figures: and both these, i. e. numbers and figures, can be set down by visible and lasting marks, wherein the ideas under consideration are perfectly determined; which for the most part they are not, where they are marked only by names and words.

§. 11. But in other simple ideas, whose modes and differences are made and counted by degrees, and not quantity, we have not so nice and accurate a distinction of their differences, as to perceive and find ways to measure their just equality, or the least differences. For those other simple ideas, being appearances of sensations, produced in us by the size, figure, number, and motion of minute corpuscles singly insensible; their different degrees also depend upon the variation of some, or of all those causes: which since it cannot be observed by us in particles of matter, whereof each is too subtile to be perceived, it is impossible for us to have any exact measures of the different degrees of these simple ideas. For supposing the sensation or idea we name whiteness be produced in us by a certain number of globules, which, having a verticity about their own centres, strike upon the retina of the eye, with a certain degree of rotation, as well as progressive swiftness; it will hence easily follow, that the more the superficial parts of any body are so ordered, as to reflect the greater number of globules of light, and to give them the proper rotation,

which is fit to produce this sensation of white in us, the more white will that body appear, that from an equal space sends to the retina the greater number of such corpuscles, with that peculiar sort of motion. I do not say, that the nature of light consists in very small round globules, nor of whiteness in such a texture of parts, as gives a certain rotation to these globules, when it reflects them; for I am not now treating physically of light or colours. But this, I think, I may say, that I cannot (and I would be glad any one would make intelligible that he did) conceive how bodies without us can any ways affect our senses, but by the immediate contact of the sensible bodies themselves, as in tasting and feeling, or the impulse of some insensible particles coming from them, as in seeing, hearing, and smelling; by the different impulse of which parts, caused by their different size, figure, and motion, the variety of sensations is produced in us.

§. 12. Whether then they be globules, or no; or whether they have a verticity about their own centres that produces the idea of whiteness in us: this is certain, that the more particles of light are reflected from a body, fitted to give them that peculiar motion, which produces the sensation of whiteness in us; and possibly too, the quicker that peculiar motion is; the whiter does the body appear, from which the greater number are reflected, as is evident in the same piece of paper put in the sun-beams, in the shade, and in a dark hole; in each of which it will produce in us the idea of whiteness in far different degrees.

§. 13. Not knowing therefore what number of particles, nor what motion of them is fit to produce any precise degree of whiteness, we cannot demonstrate the certain equality of any two degrees of whiteness, because we have no certain standard to measure them by, nor means to distinguish every the least real difference, the only help we have being from our senses, which in this point fail us. But where the difference is so great, as to produce in the mind clearly distinct ideas, whose differences can be perfectly retained, there these ideas or colours, as we see in different kinds, as blue and red,

are as capable of demonstration, as ideas of number and extension. What I have here said of whiteness and colours, I think, holds true in all secondary qualities, and their modes.

Sensitive knowledge of particular existence.

§. 14. These two, viz. intuition and demonstration, are the degrees of our knowledge; whatever comes short of one of these, with what assurance soever embraced, is but faith, or opinion, but not knowledge, at least in all general truths. There is, indeed, another perception of the mind, employed about the particular existence of finite beings without us; which going beyond bare probability, and yet not reaching perfectly to either of the foregoing degrees of certainty, passes under the name of knowledge. There can be nothing more certain, than that the idea we receive from an external object is in our minds; this is intuitive knowledge. But whether there be any thing more than barely that idea in our minds, whether we can thence certainly infer the existence of any thing without us, which corresponds to that idea, is that, whereof some men think there may be a question made; because men may have such ideas in their minds, when no such thing exists, no such object affects their senses. But yet here, I think, we are provided with an evidence, that puts us past doubting: for I ask any one, whether he be not invincibly conscious to himself of a different perception, when he looks on the sun by day, and thinks on it by night; when he actually tastes wormwood, or smells a rose, or only thinks on that savour or odour? We as plainly find the difference there is between an idea revived in our minds by our own memory, and actually coming into our minds by our senses, as we do between any two distinct ideas. If any one say, a dream may do the same thing, and all these ideas may be produced in us without any external objects; he may please to dream that I make him this answer: 1. That it is no great matter, whether I remove this scruple or no: where all is but dream, reasoning and arguments are of no use, truth and knowledge nothing. 2. That I believe he will allow a very manifest difference between dreaming of being in the fire, and

being actually in it.' But yet if he be resolved to appear so sceptical, as to maintain, that what I call being actually in the fire is nothing but a dream; and we cannot thereby certainly know, that any such thing as fire actually exists without us: I answer, that we certainly finding that pleasure or pain follows upon the application of certain objects to us, whose existence we perceive, or dream that we perceive by our senses; this certainty is as great as our happiness or misery, beyond which we have no concernment to know or to be. So that, I think, we may add to the two former sorts of knowledge this also of the existence of particular external objects, by that perception and consciousness we have of the actual entrance of ideas from them, and allow these three degrees of knowledge, viz. intuitive, demonstrative, and sensitive: in each of which there are different degrees and ways of evidence and certainty.

Knowledge not always clear, where the ideas are so.

§. 15. But since our knowledge is founded on, and employed about our ideas only, will it not follow from thence, that it is conformable to our ideas; and that where our ideas are clear and distinct, or obscure and confused, our knowledge will be so too? To which I answer, no: for our knowledge consisting in the perception of the agreement or disagreement of any two ideas, its clearness or obscurity consists in the clearness or obscurity of that perception, and not in the clearness or obscurity of the ideas themselves; v. g. a man that has as clear ideas of the angles of a triangle, and of equality to two right ones, as any mathematician in the world, may yet have but a very obscure perception of their agreement, and so have but a very obscure knowledge of it. But ideas, which by reason of their obscurity or otherwise, are confused, cannot produce any clear or distinct knowledge; because as far as any ideas are confused, so far the mind cannot perceive clearly, whether they agree or disagree. Or to express the same thing in a way less apt to be misunderstood; he that hath not determined ideas to the words he uses, cannot make propositions of them, of whose truth he can be certain.

CHAP. III.

Of the Extent of Human Knowledge.

§. 1. KNOWLEDGE, as has been said, lying in the perception of the agreement or disagreement of any of our ideas, it follows from hence, that,

1. No farther than we have ideas.

First, we can have knowledge no farther than we have ideas.

2. No farther than we can perceive their agreement or disagreement.

§. 2. Secondly, that we have no knowledge farther than we can have perception of their agreement or disagreement. Which perception being, 1. Either by intuition, or the immediate comparing any two ideas; or, 2. By reason, examining the agreement or disagreement of two ideas, by the intervention of some others; or, 3. By sensation, perceiving the existence of particular things: hence it also follows,

3. Intuitive knowledge extends itself not to all the relations of all our ideas.

§. 3. Thirdly, that we cannot have a intuitive knowledge, that shall extend itself to all our ideas, and all that we would know about them; because we cannot examine and perceive all the relations they have one to another by juxta-position, or an immediate comparison one with another. Thus having the ideas of an obtuse and an acute angled triangle, both drawn from equal bases, and between parallels, I can, by intuitive knowledge, perceive the one not to be the other, but cannot that way know whether they be equal or no; because their agreement or disagreement in equality can never be perceived by an immediate comparing them: the difference of figure makes their parts incapable of an exact immediate application; and therefore there is need of some intervening qualities to measure them by, which is demonstration, or rational knowledge.

4. Nor demonstrative knowledge.

§. 4. Fourthly, it follows also, from what is above observed, that our rational knowledge cannot reach to the whole extent of our ideas: because between two different

ideas we would examine, we cannot always find such mediums, as we can connect one to another with an intuitive knowledge, in all the parts of the deduction; and wherever that fails, we come short of knowledge and demonstration.

§. 5. Fifthly, sensitive knowledge reaching no farther than the existence of things actually present to our senses, is yet much narrower than either of the former. 5. Sensitive knowledge narrower than either.

§. 6. From all which it is evident, that the extent of our knowledge comes not only short of the reality of things, but even of the extent of our own ideas. Though our knowledge be limited to our ideas, and cannot exceed them either in extent or perfection; and though these be very narrow bounds, in respect of the extent of all being, and far short of what we may justly imagine to be in some even created understandings, not tied down to the dull and narrow information which is to be received from some few, and not very acute ways of perception, such as are our senses; yet it would be well with us if our knowledge were but as large as our ideas, and there were not many doubts and inquiries concerning the ideas we have, whereof we are not, nor I believe ever shall be in this world resolved. Nevertheless I do not question but that human knowledge, under the present circumstances of our beings and constitutions, may be carried much farther than it has hitherto been, if men would sincerely, and with freedom of mind, employ all that industry and labour of thought, in improving the means of discovering truth, which they do for the colouring or support of falsehood, to maintain a system, interest, or party, they are once engaged in. But yet after all, I think I may, without injury to human perfection, be confident, that our knowledge would never reach to all we might desire to know concerning those ideas we have: nor be able to surmount all the difficulties, and resolve all the questions that might arise concerning any of them. We have the ideas of a square, a circle, and equality; and yet, perhaps, shall never be able to find a circle equal to a square, and certainly 6. Our knowledge therefore narrower than our ideas.

know that it is so. We have the ideas of matter and thinking *, but possibly shall never be able to know, whether any mere material being thinks, or no; it being

* Against that assertion of Mr. Locke, that possibly we shall never be able to know whether any mere material being thinks or no, &c. the bishop of Worcester argues thus: if this be true, then, for all that we can know by our ideas of matter and thinking, matter may have a power of thinking: and, if this hold, then it is impossible to prove a spiritual substance in us from the idea of thinking; for how can we be assured by our ideas, that God hath not given such a power of thinking to matter so disposed as our bodies are? especially since it is said†, "That, in "respect of our notions, it is not much more remote from our compre- "hension to conceive that God can, if he pleases, superadd to our idea "of matter a faculty of thinking, than that he should superadd to it an- "other substance, with a faculty of thinking." Whoever asserts this can never prove a spiritual substance in us from a faculty of thinking, because he cannot know, from the idea of matter and thinking, that matter so disposed cannot think: and he cannot be certain, that God hath not framed the matter of our bodies so as to be capable of it.

To which Mr. Locke ‡ answers thus: here your lordship argues, that upon my principles it cannot be proved that there is a spiritual substance in us. To which, give me leave, with submission, to say, that I think it may be proved from my principles, and I think I have done it; and the proof in my book stands thus: First, we experiment in ourselves thinking. The idea of this action or mode of thinking is inconsistent with the idea of self-subsistence, and therefore has a necessary connexion with a support or subject of inhesion: the idea of that support is what we call substance; and so from thinking experimented in us, we have a proof of a thinking substance in us, which in my sense is a spirit. Against this your lordship will argue, that, by what I have said of the possibility that God may, if he pleases, superadd to matter a faculty of thinking, it can never be proved that there is a spiritual substance in us, because, upon that supposition, it is possible it may be a material substance that thinks in us. I grant it; but add, that the general idea of substance being the same every where, the modification of thinking, or the power of thinking, joined to it, makes it a spirit, without considering what other modifications it has, as, whether it has the modification of solidity or no. As, on the other side, substance, that has the modification of solidity, is matter, whether it has the modification of thinking, or no. And therefore, if your lordship means by a spiritual, an immaterial substance, I grant I have not proved, nor upon my principles can it be proved, (your lordship meaning, as I think you do, demonstratively proved) that there is an immaterial substance in us that thinks. Though, I presume, from what I have said about this supposition of a system of matter, thinking ‖ (which there demonstrates that God is immaterial) will prove it in the highest degree

† Essay of Human Understanding. B. 4. C. 3. §. 6.
‡ In his first letter to the bishop of Worcester.
‖ B. 4. C. 10. §. 16.

probable, that the thinking substance in us is immaterial. But your lordship thinks not probability enough, and by charging the want of demonstration upon my principle, that the thinking thing in us is immaterial, your lordship seems to conclude it demonstrable from principles of philosophy. The demonstration I should with joy receive from your lordship, or any one. For though all the great ends of morality and religion are well enough secured without it, as I have shown*, yet it would be a great advance of our knowledge in nature and philosophy.

To what I have said in my book, to show that all the great ends of religion and morality are secured barely by the immortality of the soul, without a necessary supposition that the soul is immaterial, I crave leave to add, that immortality may and shall be annexed to that, which in its own nature is neither immaterial nor immortal, as the apostle expressly declares in these words, † For this corruptible must put on incorruption, and this mortal must put on immortality.

Perhaps my using the word spirit for a thinking substance, without excluding materiality out of it, will be thought too great a liberty, and such as deserves censure, because I leave immateriality out of the idea I make it a sign of. I readily own, that words should be sparingly ventured on in a sense wholly new; and nothing but absolute necessity can excuse the boldness of using any term in a sense whereof we can produce no example. But, in the present case, I think I have great authorities to justify me. The soul is agreed, on all hands, to be that in us which thinks. And he that will look into the first book of Cicero's Tusculan questions, and into the sixth book of Virgil's Æneid, will find, that these two great men, who of all the Romans best understood philosophy, thought, or at least did not deny the soul to be a subtile matter, which might come under the name of aura, or ignis, or æther, and this soul they both of them called spiritus: in the notion of which, it is plain, they included only thought and active motion, without the total exclusion of matter. Whether they thought right in this, I do not say; that is not the question; but whether they spoke properly, when they called an active, thinking, subtile substance, out of which they excluded only gross and palpable matter, spiritus, spirit. I think that nobody will deny, that if any among the Romans can be allowed to speak properly, Tully and Virgil are the two who may most securely be depended on for it: and one of them speaking of the soul, says, Dum spiritus hos reget artus; and the other, Vita continetur corpore et spiritu. Where it is plain by corpus, he means (as generally every where) only gross matter that may be felt and handled, as appears by these words, Si cor, aut sanguis, aut cerebrum est animus: certe, quoniam est corpus, interibit cum reliquo corpore; si anima est, forte dissipabitur; si ignis, extinguetur, Tusc. Quæst. l. 1. c. 11. Here Cicero opposes corpus to ignis and anima, i. e. aura, or breath. And the foundation of that his distinction of the soul, from that which he calls corpus or body, he gives a little lower in these words, Tanta ejus tenuitas ut fugiat aciem, ib. c. 22. Nor was it the heathen world alone that had this notion of spirit; the most enlightened of all the ancient people of God, Solomon himself, speaks after the same manner, ‡ that which befalleth the sons of men, befalleth beasts, even one thing befalleth them; as the one dieth, so dieth the other, yea, they have all one spirit. So I

* B. 4. C. 3. § 6. † 1 Cor. xv. 53. ‡ Eccl. iii. 19.

translate the Hebrew word רוח *here*, for so I find it translated the very next verse but one;* Who knoweth the spirit of man that goeth upward, and the spirit of the beast that goeth down to the earth? In which places it is plain, that Solomon applies the word רוח, and our translators of him the word spirit, to a substance, out of which materiality was not wholly excluded, unless the spirit of a beast that goeth downwards to the earth be immaterial. Nor did the way of speaking in our Saviour's time vary from this: St. Luke tells us†, that when our Saviour, after his resurrection, stood in the midst of them, they were affrighted, and supposed that they had seen πνεῦμα, the Greek word which always answers spirit in English; and so the translators of the Bible render it here, they supposed that they had seen a spirit. But our Saviour says to them, behold my hands and my feet, that it is I myself; handle me and see; for a spirit hath not flesh and bones, as you see me have. Which words of our Saviour put the same distinction between body and spirit, that Cicero did in the place above-cited, viz. That the one was a gross compages that could be felt and handled; and the other such as Virgil describes the ghost or soul of Anchises.

Ter conatus ibi collo dare brachia circum,
Ter frustra comprensa manus effugit imago,
Par levibus ventis volucrique simillima somno‡.

I would not be thought hereby to say, that spirit never does signify a purely immaterial substance. In that sense the scripture, I take it, speaks, when it says God is a spirit; and in that sense I have used it; and in that sense I have proved from my principles that there is a spiritual substance; and am certain that there is a spiritual immaterial substance: which is, I humbly conceive, a direct answer to your lordship's question in the beginning of this argument, viz. How we come to be certain that there are spiritual substances, supposing this principle to be true, that the simple ideas by sensation and reflection are the sole matter and foundation of all our reasoning? But this hinders not, but that if God, that infinite, omnipotent, and perfectly immaterial Spirit, should please to give to a system of very subtile matter, sense and motion, it might with propriety of speech be called spirit, though materiality were not excluded out of its complex idea. Your lordship proceeds, It is said indeed elsewhere‖, that it is repugnant to the idea of senseless matter, that it should put into itself sense, perception, and knowledge. But this doth not reach the present case: which is not what matter can do of itself, but what matter prepared by an omnipotent hand can do. And what certainty can we have that he hath not done it? We can have none from the ideas, for those are given up in this case, and consequently we can have no certainty, upon these principles, whether we have any spiritual substance within us or not.

Your lordship in this paragraph proves, that, from what I say, we can have no certainty whether we have any spiritual substance in us or not. If by spiritual substance your lordship means an immaterial substance in us, as you speak, I grant what your lordship says is true, that it cannot upon these principles be demonstrated. But I must crave leave to say at the same time, that upon these principles it can be proved, to the highest degree of probability. If by spiritual substance your lordship means a thinking substance, I must dissent from your lordship, and say,

* Eccl. iii. 21. † Ch. xxiv. 37. ‡ Lib. VI. ‖ B. 4. C. 10. §. 5.

that we can have a certainty, upon my principles, that there is a spiritual substance in us. In short, my lord, upon my principles, i. e. from the idea of thinking, we can have a certainty that there is a thinking substance in us; from hence we have a certainty that there is an eternal thinking substance. This thinking substance, which has been from eternity, I have proved to be immaterial. This eternal, immaterial, thinking substance, has put into us a thinking substance, which, whether it be a material or immaterial substance, cannot be infallibly demonstrated from our ideas: though from them it may be proved, that it is to the highest degree probable that it is immaterial.

Again, the bishop of Worcester undertakes to prove from Mr. Locke's principles, that we may be certain, "That the first eternal "thinking Being, or omnipotent Spirit cannot, if he would, give to cer-"tain systems of created sensible matter, put together as he sees fit, "some degrees of sense, perception, and thought."

To which Mr. Locke has made the following answer in his third letter.

Your first argument I take to be this; that according to me, the knowledge we have being by our ideas, and our idea of matter in general being a solid substance, and our idea of body a solid extended figured substance; if I admit matter to be capable of thinking, I confound the idea of matter with the idea of a spirit: to which I answer, No; no more than I confound the idea of matter with the idea of an horse, when I say that matter in general is a solid extended substance; and that an horse is a material animal, or an extended solid substance with sense and spontaneous motion.

The idea of matter is an extended solid substance; wherever there is such a substance, there is matter, and the essence of matter, whatever other qualities, not contained in that essence, it shall please God to superadd to it. For example, God creates an extended solid substance, without the superadding any thing else to it, and so we may consider it at rest: to some parts of it he superadds motion, but it has still the essence of matter: other parts of it he frames into plants, with all the excellencies of vegetation, life, and beauty, which is to be found in a rose or peach tree, &c. above the essense of matter, in general, but it is still but matter: to other parts he adds sense and spontaneous motion, and those other properties that are to be found in an elephant. Hitherto it is not doubted but the power of God may go, and that the properties of a rose, a peach or an elephant, superadded to matter, change not the properties of matter; but matter is in these things matter still. But if one venture to go one step farther and say, God may give to matter thought, reason, and volition, as well as sense and spontaneous motion, there are men ready presently to limit the power of the omnipotent Creator, and tell us he cannot do it; because it destroys the essence, or changes the essential properties of matter. To make good which assertion, they have no more to say, but that thought and reason are not included in the essence of matter. I grant it; but whatever excellency, not contained in its essence, be superadded to matter, it does not destroy the essence of matter, if it leaves it an extended solid substance: wherever that is, there is the essence of matter: and if every thing of greater perfection, superadded to such a substance, destroys the essence of matter, what will become of the essence of matter in a plant or an animal, whose properties far exceed those of a mere extended solid substance?

But it is farther urged, that we cannot conceive how matter can think. I grant it: but to argue from thence, that God therefore cannot give to

matter a faculty of thinking, is to say God's omnipotency is limited to a narrow compass, because man's understanding is so; and brings down God's infinite power to the size of our capacities. If God can give no power to any parts of matter, but what men can account for from the essence of matter in general; if all such qualities and properties must destroy the essence, or change the essential properties of matter, which are to our conceptions above it, and we cannot conceive to be the natural consequence of that essence; it is plain, that the essence of matter is destroyed, and its essential properties changed, in most of the sensible parts of this our system. For it is visible, that all the planets have revolutions about certain remote centres, which I would have any one explain, or make conceivable by the bare essence, or natural powers depending on the essence of matter in general, without something added to that essence, which we cannot conceive; for the moving of matter in a crooked line, or the attraction of matter by matter, is all that can be said in the case; either of which it is above our reach to derive from the essence of matter or body in general; though one of these two must unavoidably be allowed to be superadded in this instance to the essence of matter in general. The omnipotent Creator advised not with us in the making of the world, and his ways are not the less excellent, because they are past finding out.

In the next place, the vegetable part of the creation is not doubted to be wholly material; and yet he that will look into it, will observe excellencies and operations in this part of matter, which he will not find contained in the essence of matter in general, nor be able to conceive how they can be produced by it. And will he therefore say, that the essence of matter is destroyed in them, because they have properties and operations not contained in the essential properties of matter as matter, nor explicable by the essence of matter in general?

Let us advance one step farther, and we shall in the animal world meet with yet greater perfections and properties, no ways explicable by the essence of matter in general. If the omnipotent Creator had not superadded to the earth, which produced the irrational animals, qualities far surpassing those of the dull dead earth, out of which they were made, life, sense, and spontaneous motion, nobler qualities than were before in it, it had still remained rude senseless matter; and if to the individuals of each species he had not superadded a power of propagation, the species had perished with those individuals: but by these essences or properties of each species, superadded to the matter which they were made of, the essence or properties of matter in general were not destroyed or changed, any more than any thing that was in the individuals before was destroyed or changed by the power of generation, superadded to them by the first benediction of the Almighty. *

In all such cases, the superinducement of greater perfections and nobler qualities destroys nothing of the essence or perfections that were there before; unless there can be showed a manifest repugnancy between them: but all the proof offered for that, is only, that we cannot conceive how matter, without such superadded perfections, can produce such effects; which is, in truth, no more than to say, matter in general, or every part of matter, as matter, has them not; but is no reason to prove, that God, if he pleases, cannot superadd them to some parts of matter, unless it can be proved to be a contradiction, that God should give to some parts of matter qualities and perfections, which matter in general has not; though we cannot conceive how matter is invested with them, or how it operates

by virtue of those new endowments; nor is it to be wondered that we cannot, whilst we limit all its operations to those qualities it had before, and would explain them by the known properties of matter in general, without any such induced perfections. For, if this be a right rule of reasoning, to deny a thing to be, because we cannot conceive the manner how it comes to be; I shall desire them who use it to stick to this rule, and see what work it will make both in divinity as well as philosophy: and whether they can advance any thing more in favour of scepticism.

For to keep within the present subject of the power of thinking and self-motion, bestowed by omnipotent power in some parts of matter: the objection to this is, I cannot conceive how matter should think. What is the consequence? Ergo, God cannot give it a power to think. Let this stand for a good reason, and then proceed in other cases by the same. You cannot conceive how matter can attract matter at any distance, much less at the distance of 1,000,000 miles; ergo, God cannot give it such a power: you cannot conceive how matter should feel, or move itself, or affect an immaterial being, or be moved by it; ergo, God cannot give it such powers: which is in effect to deny gravity, and the revolution of the planets about the sun; to make brutes mere machines, without sense or spontaneous motion; and to allow man neither sense nor voluntary motion.

Let us apply this rule one degree farther. You cannot conceive how an extended solid substance should think, therefore God cannot make it think: can you conceive how your own soul, or any substance, thinks? You find indeed that you do think, and so do I; but I want to be told how the action of thinking is performed: this, I confess, is beyond my conception; and I would be glad any one, who conceives it, would explain it to me. God, I find, has given me this faculty; and since I cannot but be convinced of his power in this instance, which though I every moment experiment in myself, yet I cannot conceive the manner of; what would it be less than an insolent absurdity, to deny his power in other like cases, only for this reason, because I cannot conceive the manner how?

To explain this matter a little farther: God has created a substance; let it be, for example, a solid extended substance. Is God bound to give it, besides being, a power of action? that, I think, nobody will say: he therefore may leave it in a state of inactivity, and it will be nevertheless a substance; for action is not necessary to the being of any substance that God does create. God has likewise created and made to exist, de novo, an immaterial substance, which will not lose its being of a substance, though God should bestow on it nothing more but this bare being, without giving it any activity at all. Here are now two distinct substances, the one material, the other immaterial, both in a state of perfect inactivity. Now I ask, what power God can give to one of these substances (supposing them to retain the same distinct natures that they had as substances in their state of inactivity) which he cannot give to the other? In that state, it is plain, neither of them thinks; for thinking being an action, it cannot be denied, that God can put an end to any action of any created substance, without annihilating of the substance whereof it is an action; and if it be so, he can also create or give existence to such a substance, without giving that substance any action at all. By the same reason it is plain, that neither of them can move itself: now I would ask, why Omnipotency cannot give to either of these substances, which are equally in a state of perfect inactivity, the same power that it can give to the other? Let it be, for example, that of spontaneous or self-mo-

tion, which is a power that it is supposed God can give to an unsolid substance, but denied that he can give to solid substance.

If it be asked, why they limit the omnipotency of God, in reference to the one rather than the other of these substances? all that can be said to it is, that they cannot conceive, how the solid substance should ever be able to move itself. And as little, say I, are they able to conceive, how a created unsolid substance should move itself. But there may be something in an immaterial substance, that you do not know. I grant it; and in a material one too: for example, gravitation of matter towards matter, and in the several proportions observable, inevitably shows, that there is something in matter that we do not understand, unless we can conceive self-motion in matter; or an inexplicable and inconceivable attraction in matter, at immense, almost incomprehensible distances: it must therefore be confessed, that there is something in solid, as well as unsolid substances, that we do not understand. But this we know, that they may each of them have their distinct beings, without any activity superadded to them, unless you will deny, that God can take from any being its power of acting, which it is probable will be thought too presumptuous for any one to do; and I say it is as hard to conceive self-motion in a created immaterial, as in a material being, consider it how you will: and therefore this is no reason to deny Omnipotency to be able to give a power of self-motion to a material substance, if he pleases, as well as to an immaterial; since neither of them can have it from themselves, nor can we conceive how it can be in either of them.

The same is visible in the other operation of thinking: both these substances may be made, and exist without thought; neither of them has, or can have the power of thinking from itself; God may give it to either of them, according to the good pleasure of his omnipotency; and in which ever of them it is, it is equally beyond our capacity to conceive, how either of these substances thinks. But for that reason, to deny that God, who had power enough to give them [redacted] a being out of nothing, can by the same omnipotency, give them with other powers and perfections he pleases, has no better foundation than to deny his power of creation, because we cannot conceive how it is performed: and there, at last, this way of reasoning must terminate.

That Omnipotency cannot make a substance to be solid and not solid at the same time, I think with due reverence we may say; but that a solid substance may not have qualities, perfections, and powers, which have no natural or visibly necessary connexion with solidity and extension, is too much for us (who are but of yesterday, and know nothing) to be positive in. If God cannot join things together by connexions inconceivable to us, we must deny even the consistency and being of matter itself; since every particle of it having some bulk, has its parts connected by ways inconceivable to us. So that all the difficulties that are raised against the thinking of matter, from our ignorance, or narrow conceptions, stand not at all in the way of the power of God, if he pleases to ordain it so; nor prove any thing against his having actually endued some parcels of matter, so disposed as he thinks fit, with a faculty of thinking, till it can be shown, that it contains a contradiction to suppose it.

Though to me sensation be comprehended under thinking in general, yet, in the foregoing discourse, I have spoke of sense in brutes, as distinct from thinking; because your lordship, as I remember, speaks of sense in brutes. But here I take liberty to observe, that if your lordship allows

brutes to have sensation, it will follow, either that God can and doth give to some parcels of matter a power of perception and thinking; or that all animals have immaterial, and consequently, according to your lordship, immortal souls, as well as men; and to say that fleas and mites, &c. have immortal souls as well as men, will possibly be looked on as going a great way to serve an hypothesis.

I have been pretty large in making this matter plain, that they who are so forward to bestow hard censures or names on the opinions of those who differ from them, may consider whether sometimes they are not more due to their own; and that they may be persuaded a little to temper that heat, which, supposing the truth in their current opinions, gives them (as they think) a right to lay what imputations they please on those who would fairly examine the grounds they stand upon. For talking with a supposition and insinuations, that truth and knowledge, nay, and religion too, stand and fall with their systems, is at best but an imperious way of begging the question, and assuming to themselves, under the pretence of zeal for the cause of God, a title to infallibility. It is very becoming that men's zeal for truth should go as far as their proofs, but not go for proofs themselves. He that attacks received opinions with any thing but fair arguments, may, I own, be justly suspected not to mean well, nor to be led by the love of truth; but the same may be said of him too, who so defends them. An error is not the better for being common, nor truth the worse for having lain neglected; and if it were put to the vote any where in the world, I doubt, as things are managed, whether truth would have the majority, at least whilst the authority of men, and not the examination of things, must be its measure. The imputation of scepticism, and those broad insinuations to render what I have writ suspected, so frequent, as if that were the great business of all this pains you have been at about me, has made me say thus much, my lord, rather as my sense of the way to establish truth in its full force and beauty, than that I think the world will need to have any thing said to it, to make it distinguish between your lordship's and my design in writing, which therefore I securely leave to the judgment of the reader, and return to the argument in hand.

What I have above said, I take to be a full answer to all that your lordship would infer from my idea of matter, of liberty, of identity, and from the power of abstracting. You ask, * How can my idea of liberty agree with the idea that bodies can operate only by motion and impulse? Ans. By the omnipotency of God, who can make all things agree, that involve not a contradiction. It is true, I say, "† That bodies operate by impulse, and nothing else." And so I thought when I writ it, and can yet conceive no other way of their operation. But I am since convinced by the judicious Mr. Newton's incomparable book, that it is too bold a presumption to limit God's power in this point by my narrow conceptions. The gravitation of matter towards matter, by ways unconceivable to me, is not only a demonstration that God can, if he pleases, put into bodies powers, and ways of operation, above what can be derived from our idea of body, or can be explained by what we know of matter, but also an unquestionable, and every where visible instance, that he has done so. And therefore in the next edition of my book, I will take care to have that passage rectified.

* 1st Answer. † Essay, B. 2. Ch. 8. §. 11.

As to self-consciousness, your lordship asks, * What is there like self-consciousness in matter? Nothing at all in matter as matter. But that God cannot bestow on some parcels of matter a power of thinking, and with it self-consciousness, will never be proved by asking, † How is it possible to apprehend that mere body should perceive that it doth perceive? The weakness of our apprehension I grant in the case; I confess as much as you please, that we cannot conceive how a solid, no, nor how an unsolid created substance thinks; but this weakness of our apprehensions reaches not the power of God, whose weakness is stronger than any thing in men.

Your argument from abstraction we have in this question, ‡ If it may be in the power of matter to think, how comes it to be so impossible for such organized bodies as the brutes have, to enlarge their ideas by abstraction? Answ. This seems to suppose, that I place thinking within the natural power of matter. If that be your meaning, my lord, I never say, nor suppose, that all matter has naturally in it a faculty of thinking, but the direct contrary. But if you mean that certain parcels of matter, ordered by the Divine power, as seems fit to him, may be made capable of receiving from his omnipotency the faculty of thinking; that, indeed, I say; and that being granted, the answer to your question is easy; since, if Omnipotency can give thought to any solid substance, it is not hard to conceive, that God may give that faculty in a higher or lower degree, as it pleases him, who knows what disposition of the subject is suited to such a particular way or degree of thinking.

Another argument to prove, that God cannot endue any parcel of matter with the faculty of thinking, is taken from those words of mine, ‖ where I show, by what connexion of ideas we may come to know, that God is an immaterial substance. They are these, "The idea of an eternal "actual knowing being, with the idea of immateriality, by the inter-"vention of the idea of matter, and of its actual division, divisibility, "and want of perception," &c. From whence your lordship thus argues, ** Here the want of perception is owned to be so essential to matter, that God is therefore concluded to be immaterial. Answ. Perception and knowledge in that one eternal Being, where it has its source, it is visible must be essentially inseparable from it; therefore the actual want of perception in so great a part of the particular parcels of matter, is a demonstration, that the first being, from whom perception and knowledge are inseparable, is not matter: how far this makes the want of perception an essential property of matter, I will not dispute; it suffices that it shows, that perception is not an essential property of matter; and therefore matter cannot be that eternal original being to which perception and knowledge are essential. Matter, I say, naturally is without perception: ergo, says your lordship, want of perception is an essential property of matter, and God does not change the essential properties of things, their nature remaining. From whence you infer, that God cannot bestow on any parcel of matter (the nature of matter remaining) a faculty of thinking. If the rules of logic, since my days, be not changed, I may safely deny this consequence. For an argument that runs thus, God does not; ergo, he cannot, I was taught when I first came to the university, would not hold. For I never said God did; but, †† "That I see no contradiction in it,

* 1st Ans. † Ibid. ‡ Ibid. ‖ 1st Letter. ** 1st Ans.

†† B. 4. C. 3. §. 6.

"that he should, if he pleased, give to some systems of senseless matter "a faculty of thinking;" and I know nobody before Des Cartes, that ever pretended to show that there was any contradiction in it. So that at worst, my not being able to see in matter any such incapacity as makes it impossible for Omnipotency to bestow on it a faculty of thinking, makes me opposite only to the Cartesians. For, as far as I have seen or heard, the fathers of the christian church never pretended to demonstrate that matter was incapable to receive a power of sensation, perception and thinking, from the hand of the omnipotent Creator. Let us therefore, if you please, suppose the form of your argumentation right, and that your lordship means, God cannot: and then, if your argument be good, it proves, that God could not give to Balaam's ass a power to speak to his master as he did; for the want of rational discourse being natural to that species, it is but for your lordship to call it an essential property, and then God cannot change the essential properties of things, their nature remaining: whereby it is proved, that God cannot, with all his omnipotency, give to an ass a power to speak as Balaam's did.

You say,* my lord, You do not set bounds to God's omnipotency: for he may, if he please, change a body into an immaterial substance, i. e. take away from a substance the solidity which it had before, and which made it matter, and then give it a faculty of thinking, which it had not before, and which makes it a spirit, the same substance remaining. For if the substance remains not, body is not changed into an immaterial substance, but the solid substance, and all belonging to it, is annihilated, and an immaterial substance created, which is not a change of one thing into another, but the destroying of one, and making another de novo. In this change therefore of a body or material substance into an immaterial, let us observe these distinct considerations.

First, you say, God may, if he pleases, take away from a solid substance solidity, which is that which makes it a material substance or body; and may make it an immaterial substance, i. e. a substance without solidity. But this privation of one quality gives it not another; the bare taking away a lower or less noble quality does not give it an higher or nobler; that must be the gift of God. For the bare privation of one, and a meaner quality, cannot be the position of an higher and better; unless any one will say, that cogitation, or the power of thinking, results from the nature of substance itself: which if it do, then wherever there is substance, there must be cogitation, or a power of thinking. Here then, upon your lordship's own principles, is an immaterial substance without the faculty of thinking.

In the next place, you will not deny, but God may give to this substance, thus deprived of solidity, a faculty of thinking; for you suppose it made capable of that, by being made immaterial; whereby you allow, that the same numerical substance may be sometimes wholly incogitative, or without a power of thinking, and at other times perfectly cogitative, or endued with a power of thinking.

Further, you will not deny, but God can give it solidity and make it material again. For, I conclude, it will not be denied, that God can make it again what it was before. Now I crave leave to ask your lordship, why God, having given to this substance the faculty of thinking after solidity was taken from it, cannot restore to it solidity again, with-

* 1st Answer.

out taking away the faculty of thinking? When you have resolved this, my lord, you will have proved it impossible for God's omnipotence to give a solid substance a faculty of thinking; but till then, not having proved it impossible, and yet denying that God can do it, is to deny that he can do what is in itself possible; which, as I humbly conceive, is visibly to set bounds to God's omnipotency, though you say here* you do not set bounds to God's omnipotency.

If I should imitate your lordship's way of writing, I should not omit to bring in Epicurus here, and take notice that this was his way, Deum verbis ponere, re tollere: and then add, that I am certain you do not think he promoted the great ends of religion and morality. For it is with such candid and kind insinuations as these, that you bring in both † Hobbes and ‡ Spinosa into your discourse here about God's being able, if he please, to give to some parcels of matter, ordered as he thinks fit, a faculty of thinking: neither of those authors having, as appears by any passages you bring out of them, said any thing to this question, nor having, as it seems, any other business here, but by their names skilfully to give that character to my book, with which you would recommend it to the world.

I pretend not to inquire what measure of zeal, nor for what, guides your lordship's pen in such a way of writing, as yours has all along been with me: only I cannot but consider, what reputation it would give to the writings of the fathers of the church, if they should think truth required, or religion allowed them to imitate such patterns. But God be thanked, there be those amongst them, who do not admire such ways of managing the cause of truth or religion; they being sensible that if every one, who believes or can pretend he hath truth on his side, is thereby authorized, without proof, to insinuate whatever may serve to prejudice men's minds against the other side, there will be great ravage made on charity and practice, without any gain to truth or knowledge: and that the liberties frequently taken by disputants to do so, may have been the cause that the world in all ages has received so much harm, and so little advantage from controversies in religion.

These are the arguments which your lordship has brought to confute one saying in my book, by other passages in it; which therefore being all but argumenta ad hominem, if they did prove what they do not, are of no other use, than to gain a victory over me: a thing methinks, so much beneath your lordship, that it does not deserve one of your pages. The question is, whether God can, if he pleases, bestow on any parcel of matter, ordered as he thinks fit, a faculty of perception and thinking. You say, ‖ you look upon a mistake herein to be of dangerous consequence, as to the great ends of religion and morality. If this be so, my lord, I think one may well wonder, why your lordship has brought no arguments to establish the truth itself which you look on to be of such dangerous consequence to be mistaken in; but have spent so many pages only in a personal matter, in endeavouring to show, that I had inconsistencies in my book; which if any such thing had been showed, the question would be still as far from being decided, and the danger of mistaking about it as little prevented, as if nothing of all this had been said. If therefore your lordship's care of the great ends of religion and morality have made

* 1st Answer. † Ibid. ‡ Ibid. ‖ Ibid.

you think it necessary to clear this question, the world has reason to conclude there is little to be said against that proposition which is to be found in my book, concerning the possibility, that some parcels of matter might be so ordered by Omnipotence, as to be endued with a faculty of thinking, if God so pleased; since your lordship's concern for the promoting the great ends of religion and morality, has not enabled you to produce one argument against a proposition that you think of so dangerous consequence to them.

And here I crave leave to observe, that though in your title page you promise to prove, that my notion of ideas is inconsistent with itself, (which if it were, it could hardly be proved to be inconsistent with any thing else) and with the articles of the christian faith; yet your attempts all along have been to prove me, in some passages of my book, inconsistent with myself, without having shown any proposition in my book inconsistent with any article of the christian faith.

I think your lordship has indeed made use of one argument of your own: but it is such an one, that I confess I do not see how it is apt much to promote religion, especially the christian religion, founded on revelation. I shall set down your lordship's words, that they may be considered: you say,* that you are of opinion, that the great ends of religion and morality are best secured by the proofs of the immortality of the soul from its nature and properties; and which you think prove it immaterial. Your lordship does not question whether God can give immortality to a material substance; but you say it takes off very much from the evidence of immortality, if it depend wholly upon God's giving that, which of its own nature it is not capable of, &c. So likewise you say,† If a man cannot be certain, but that matter may think, (as I affirm) then what becomes of the soul's immateriality (and consequently immortality) from its operations? But for all this, say I, his assurance of faith remains on its own basis. Now you appeal to any man of sense, whether the finding the uncertainty of his own principles, which he went upon, in point of reason, doth not weaken the credibility of these fundamental articles, when they are considered purely as matters of faith? For before, there was a natural credibility in them on account of reason; but by going on wrong grounds of certainty, all that is lost, and instead of being certain, he is more doubtful than ever. And if the evidence of faith fall so much short of that of reason, it must needs have less effect upon men's minds, when the subserviency of reason is taken away; as it must be when the grounds of certainty by reason are vanished. Is it at all probable, that he who finds his reason deceive him in such fundamental points, shall have his faith stand firm and unmoveable on the account of revelation? For in matters of revelation there must be some antecedent principles supposed, before we can believe any thing on the account of it.

More to the same purpose we have some pages farther, where, from some of my words your lordship says,‡ you cannot but observe, that we have no certainty upon my grounds, that self-consciousness depends upon an individual immaterial substance, and consequently that a material substance may, according to my principles, have self-consciousness in it; at least, that I am not certain of the contrary. Whereupon your lordship bids me consider, whether this doth not a little affect the whole article

* 1st Answer. † 2d Answer. ‡ Ibid.

of the resurrection. What does all this tend to, but to make the world believe that I have lessened the credibility of the immortality of the soul, and the resurrection, by saying, that though it be most highly probable, that the soul is immaterial, yet upon my principles it cannot be demonstrated; because it is not impossible to God's omnipotency, if he pleases, to bestow upon some parcels of matter, disposed as he sees fit, a faculty of thinking?

This your accusation of my lessening the credibility of these articles of faith, is founded on this, that the article of the immortality of the soul abates of its credibility, if it be allowed, that its immateriality (which is the supposed proof from reason and philosophy of its immortality) cannot be demonstrated from natural reason: which argument of your lordship's bottoms, as I humbly conceive, on this, that divine revelation abates of its credibility in all those articles it proposes, proportionably as human reason fails to support the testimony of God. And all that your lordship in those passages has said, when examined, will, I suppose, be found to import thus much, viz. Does God propose any thing to mankind to be believed? It is very fit and credible to be believed, if reason can demonstrate it to be true. But if human reason come short in the case, and cannot make it out, its credibility is thereby lessened; which is in effect to say, that the veracity of God is not a firm and sure foundation of faith to rely upon, without the concurrent testimony of reason; i. e. with reverence be it spoken, God is not to be believed on his own word, unless what he reveals be in itself credible, and might be believed without him.

If this be a way to promote religion, the christian religion, in all its articles, I am not sorry that it is not a way to be found in any of my writings; for I imagine any thing like this would (and I should think deserved to) have other titles than bare scepticism bestowed upon it, and would have raised no small outcry against any one, who is not to be supposed to be in the right in all that he says, and so may securely say what he pleases. Such as I, the profanum vulgus, who take too much upon us, if we would examine, have nothing to do but to hearken and believe, though what he said should subvert the very foundations of the christian faith.

What I have above observed, is so visibly contained in your lordship's argument, that when I met with it in your answer to my first letter, it seemed so strange for a man of your lordship's character, and in a dispute in defence of the doctrine of the Trinity, that I could hardly persuade myself, but it was a slip of your pen: but when I found it in your second letter* made use of again, and seriously enlarged as an argument of weight to be insisted upon, I was convinced that it was a principle that you heartily embraced, how little favourable soever it was to the articles of the christian religion, and particularly those which you undertook to defend.

I desire my reader to peruse the passages as they stand in your letters themselves, and see whether what you say in them does not amount to this: that a revelation from God is more or less credible, according as it has a stronger or weaker confirmation from human reason. For,

1. Your lordship says,† you do not question whether God can give immortality to a material substance; but you say it takes off very much from the evidence of immortality, if it depends wholly upon God's giving that, which of its own nature it is not capable of.

* 2d Answer. † 1st Answer.

To which I reply, any one's not being able to demonstrate the soul to be immaterial, takes off not very much, nor at all, from the evidence of its immortality, if God has revealed that it shall be immortal; because the veracity of God is a demonstration of the truth of what he has revealed, and the want of another demonstration of a proposition, that is demonstratively true, takes not off from the evidence of it. For where there is a clear demonstration, there is as much evidence as any truth can have, that is not self-evident. God has revealed that the souls of men should live for ever. But, says your lordship, from this evidence it takes off very much, if it depends wholly upon God's giving that, which of its own nature it is not capable of, i. e. The revelation and testimony of God loses much of its evidence, if this depends wholly upon the good pleasure of God, and cannot be demonstratively made out by natural reason, that the soul is immaterial, and consequently in its own nature immortal. For that is all that here is or can be meant by these words, which of its own nature it is not capable of, to make them to the purpose. For the whole of your lordship's discourse here, is to prove, that the soul cannot be material, because then the evidence of its being immortal would be very much lessened. Which is to say, that it is not as credible upon divine revelation, that a material substance should be immortal, as an immaterial; or which is all one, that God is not equally to be believed, when he declares, that a material substance shall be immortal, as when he declares, that an immaterial shall be so; because the immortality of a material substance cannot be demonstrated from natural reason.

Let us try this rule of your lordship's a little farther. God hath revealed, that the bodies men shall have after the resurrection, as well as their souls, shall live to eternity. Does your lordship believe the eternal life of the one of these more than of the other, because you think you can prove it of one of them by natural reason, and of the other not? Or can any one, who admits of divine revelation in the case, doubt of one of them more than the other? Or think this proposition less credible, that the bodies of men, after the resurrection, shall live for ever; than this, That the souls of men shall, after the resurrection, live for ever? For that he must do, if he thinks either of them is less credible than the other. If this be so, reason is to be consulted how far God is to be believed, and the credit of divine testimony must receive its force from the evidence of reason; which is evidently to take away the credibility of divine revelation in all supernatural truths, wherein the evidence of reason fails. And how much such a principle as this tends to the support of the doctrine of the Trinity, or the promoting the christian religion, I shall leave it to your lordship to consider.

I am not so well read in Hobbes or Spinosa, as to be able to say, what were their opinions in this matter. But possibly there be those, who will think your lordship's authority of more use to them in the case, than those justly decried names; and be glad to find your lordship a patron of the oracles of reason, so little to the advantage of the oracles of divine revelation. This at least, I think, may be subjoined to the words at the bottom of the next page*, That those who have gone about to lessen the credibility of the articles of faith, which evidently they do, who say they are less credible, because they cannot be made out demonstratively by natural reason, have not been thought to secure several of the articles

* 1st Answer.

of the christian faith, especially those of the trinity, incarnation, and resurrection of the body, which are those upon the account of which I am brought by your lordship into this dispute.

I shall not trouble the reader with your lordship's endeavours, in the following words, to prove, that if the soul be not an immaterial substance, it can be nothing but life; your very first words visibly confuting all that you allege to that purpose, they are, * If the soul be a material substance, it is really nothing but life; which is to say, That if the soul be really a substance, it is not really a substance, but really nothing else but an affection of a substance; for the life, whether of a material or immaterial substance, is not the substance itself, but an affection of it.

2. You say, † Although we think the separate state of the soul after death, is sufficiently revealed in the scripture; yet it creates a great difficulty in understanding it, if the soul be nothing but life, or a material substance, which must be dissolved when life is ended. For, if the soul be a material substance, it must be made up, as others are, of the cohesion of solid and separate parts, how minute and invisible soever they be. And what is it which should keep them together, when life is gone? So that it is no easy matter to give an account how the soul should be capable of immortality, unless it be an immaterial substance; and then we know the solution and texture of bodies cannot reach the soul, being of a different nature.

Let it be as hard a matter as it will, to give an account what it is that should keep the parts of a material soul together, after it is separated from the body; yet it will be always as easy to give an account of it, as to give an account what it is that shall keep together a material and immaterial substance. And yet the difficulty that there is to give an account of that, I hope, does not, with your lordship, weaken the credibility of the inseparable union of soul and body to eternity: and I persuade myself, that the men of sense, to whom your lordship appeals in the case, do not find their belief of this fundamental point much weakened by that difficulty. I thought heretofore (and by your lordship's permission would think so still) that the union of the parts of matter, one with another, is as much in the hands of God, as the union of a material and immaterial substance; and that it does not take off very much, or at all, from the evidence of immortality, which depends on that union, that it is no easy matter to give an account what it is that should keep them together: though its depending wholly upon the gift and good pleasure of God, where the manner creates great difficulty in the understanding, and our reason cannot discover in the nature of things how it is, be that which, your lordship so positively says, lessens the credibility of the fundamental articles of the resurrection and immortality.

But, my lord, to remove this objection a little, and to show of how small force it is even with yourself; give me leave to presume, that your lordship as firmly believes the immortality of the body after the resurrection, as any other article of faith; if so, then it being no easy matter to give an account what it is that shall keep together the parts of a material soul, to one that believes it is material, can no more weaken the credibility of its immortality, than the like difficulty weakens the credibility of the immortality of the body. For, when your lordship shall find it an easy matter to give an account what it is, besides the good pleasure of

* 1st Answer. † Ibid.

God, which shall keep together the parts of our material bodies to eternity, or even soul and body, I doubt not but any one who shall think the soul material, will also find it as easy to give an account what it is that shall keep those parts of matter also together to eternity.

Were it not that the warmth of controversy is apt to make men so far forget, as to take up those principles themselves (when they will serve their turn) which they have highly condemned in others, I should wonder to find your lordship to argue, that because it is a difficulty to understand what shall keep together the minute parts of a material soul, when life is gone; and because it is not an easy matter to give an account how the soul shall be capable of immortality, unless it be an immaterial substance: therefore it is not so credible, as if it were easy to give an account by natural reason, how it could be. For to this it is that all this your discourse tends, as is evident by what is already set down: and will be more fully made out by what your lordship says in other places, though there needs no such proof, since it would all be nothing against me in any other sense.

I thought your lordship had in other places asserted, and insisted on this truth, that no part of divine revelation was the less to be believed, because the thing itself created great difficulty in the understanding, and the manner of it was hard to be explained and it was no easy matter to give an account how it was. This, as I take it, your lordship condemned in others as a very unreasonable principle, and such as would subvert all the articles of the christian religion, that were mere matters of faith, as I think it will: and is it possible, that you should make use of it here yourself, against the article of life and immortality, that Christ hath brought to light through the gospel, and neither was, nor could be made out by natural reason without revelation? But you will say, you speak only of the soul; and your words are, That it is no easy matter to give an account how the soul should be capable of immortality, unless it be an immaterial substance. I grant it; but crave leave to say, that there is not any one of those difficulties, that are or can be raised about the manner how a material soul can be immortal, which do not as well reach the immortality of the body.

But, if it were not so, I am sure this principle of your lordship's would reach other articles of faith, wherein our natural reason finds it not so easy to give an account how those mysteries are; and which therefore, according to your principles, must be less credible than other articles, that create less difficulty to the understanding. For your lordship says, * that you appeal to any man of sense, whether to a man, who thought by his principles he could from natural grounds demonstrate the immortality of the soul, the finding the uncertainty of those principles he went upon in point of reason, i. e. the finding he could not certainly prove it by natural reason, doth not weaken the credibility of that fundamental article, when it is considered purely as a matter of faith? which, in effect, I humbly conceive, amounts to this, that a proposition divinely revealed, that cannot be proved by natural reason, is less credible than one that can: which seems to me to come very little short of this, with due reverence be it spoken, that God is less to be believed when he affirms a proposition that cannot be proved by natural reason, than when he proposes what can be proved by it. The direct contrary to which is my opinion,

* 2d Answer.

though you endeavour to make it good by these following words; * If the evidence of faith fall too much short of that of reason it must needs have less effect upon men's minds, when the subserviency of reason is taken away; as it must be when the grounds of certainty by reason are vanished. Is it at all probable, that he who finds his reason deceive him in such fundamental points, should have his faith stand firm and unmoveable on the account of revelation? Than which I think there are hardly plainer words to be found out to declare, that the credibility of God's testimony depends on the natural evidence of probability of the things we receive from revelation, and rises and falls with it; and that the truths of God, or the articles of mere faith, lose so much of their credibility, as they want proof from reason; which if true, revelation may come to have no credibility at all. For if, in this present case, the credibility of this proposition, the souls of men shall live for ever, revealed in the scripture, be lessened by confessing it cannot be demonstratively proved from reason; though it be asserted to be most highly probable: must not, by the same rule, its credibility dwindle away to nothing, if natural reason should not be able to make it out to be so much as probable, or should place the probability from natural principles on the other side? For, if mere want of demonstration lessens the credibility of any proposition divinely revealed, must not want of probability, or contrary probability from natural reason, quite take away its credibility? Here at last it must end, if in any one case the veracity of God, and the credibility of the truths we receive from him by revelation, be subjected to the verdicts of human reason, and be allowed to receive any accession or diminution from other proofs, or want of other proofs of its certainty or probability.

If this be your lordship's way to promote religion, or defend its articles, I know not what argument the greatest enemies of it could use more effectual for the subversion of those you have undertaken to defend; this being to resolve all revelation perfectly and purely into natural reason, to bound its credibility by that, and leave no room for faith in other things, than what can be accounted for by natural reason without revelation.

Your lordship † insists much upon it, as if I had contradicted what I have said in my essay, by saying ‡ that upon my principles it cannot be demonstratively proved, that it is an immaterial substance in us that thinks, however probable it be. He that will be at the pains to read that chapter of mine, and consider it, will find, that my business there was to show, that it was no harder to conceive an immaterial than a material substance; and that from the ideas of thought, and a power of moving of matter, which we experienced in ourselves, (ideas originally not belonging to matter as matter) there was no more difficulty to conclude there was an immaterial substance in us, than that we had material parts. These ideas of thinking, and power of moving of matter, I in another place showed, did demonstratively lead us the certain knowledge of the existence of an immaterial thinking being, in whom we have the idea of spirit in the strictest sense; in which sense I also applied it to the soul, in the 23d ch. of my essay; the easily conceivable possibility, nay great probability, that the thinking substance in us is immaterial, giving me sufficient ground for it: in which sense I shall think I may safely attribute it to the thinking substance in us, till your lordship shall have better proved from my words, that it is impossible it should be immaterial. For I only say, that

* 2d Answer. † 1st Answer. ‡ B. 2. C. 23.

it is possible, i. e. involves no contradiction, that God, the omnipotent immaterial spirit, should, if he pleases, give to some parcels of matter, disposed as he thinks fit, a power of thinking and moving: which parcels of matter, so endued with a power of thinking and motion, might properly be called spirits, in contradistinction to unthinking matter. In all which, I presume, there is no manner of contradiction.

I justified my use of the word spirit, in that sense, from the authorities of Cicero and Virgil, applying the Latin word spiritus, from whence spirit is derived, to the soul as a thinking thing, without excluding materiality out of it. To which your lordship replies, * That Cicero, in his Tusculan Questions, supposes the soul not to be a finer sort of body, but of a different nature from the body——That he calls the body the prison of the soul——And says, that a wise man's business is to draw off his soul from his body. And then your lordship concludes, as is usual, with a question, Is it possible now to think so great a man looked on the soul but as a modification of the body, which must be at an end with life? Ans. No; it is impossible that a man of so good sense as Tully, when he uses the word corpus or body for the gross and visible parts of a man, which he acknowledges to be mortal, should look on the soul to be a modification of that body; in a discourse wherein he was endeavouring to persuade another, that it was immortal. It is to be acknowledged that truly great men, such as he was, are not wont so manifestly to contradict themselves. He had therefore no thought concerning the modification of the body of a man in the case: he was not such a trifler as to examine, whether the modification of the body of a man was immortal, when that body itself was mortal: and therefore, that which he reports as Dicæarchus's opinion, he dismisses in the beginning without any more ado, c. 11. But Cicero's was a direct, plain, and sensible inquiry, viz. What the soul was? to see whether from thence he could discover its immortality. But in all that discourse in his first book of Tusculan Questions, where he lays out so much of his reading and reason, there is not one syllable showing the least thought that the soul was an immaterial substance; but many things directly to the contrary.

Indeed (1) he shuts out the body, taken in the senses he uses † corpus all along, for the sensible organical parts of a man; and is positive that is not the soul: and body in this sense, taken for the human body, he calls the prison of the soul: and says a wise man, instancing in Socrates and Cato, is glad of a fair opportunity to get out of it. But he no where says any such thing of matter: he calls not matter in general the prison of the soul, nor talks a word of being separate from it.

2. He concludes, that the soul is not, like other things here below, made up of a composition of the elements, ch. 27.

3. He excludes the two gross elements, earth and water, from being the soul, ch. 26.

So far he is clear and positive: but beyond this he is uncertain; beyond this he could not get: for in some places he speaks doubtfully, whether the soul be not air or fire. Anima sit animus, ignisve, nescio, c. 25. And therefore he agrees with Panætius, that if it be at all elementary, it is, as he calls it, inflammata anima, inflamed air; and for this he gives several reasons, c. 18, 19. And though he thinks it to be of a peculiar nature

* 1st Answer. † Ch. 19, 22, 30, 31, &c.

of its own, yet he is so far from thinking it immaterial, that he says, c. 19, that the admitting it to be of an aërial or igneous nature, will not be inconsistent with any thing he had said.

That which he seems most to incline to is, that the soul was not at all elementary, but was of the same substance with the heavens; which Aristotle, to distinguish from the four elements, and the changeable bodies here below, which he supposed made up of them, called quinta essentia. That this was Tully's opinion is plain from these words, Ergo animus (qui, ut ego dico, divinus) est, ut Euripides audet dicere, Deus: & quidem, si Deus aut anima aut ignis est, idem est animus hominis. Nam ut illa naturâ cœlestis et terrâ vacat & humore; sic utrinsque harum rerum humanus animus est expers. Sin autem est quinta quædam natura ab Aristotele inducta; primum hæc & deorum est & animorum. Hanc nos sententiam secuti, his ipsis verbis in consolatione hæc expressimus, ch. 29. And then he goes on, c. 27. to repeat those his own words, which your lordship has quoted out of him, wherein he had affirmed, in his treatise De Consolatione, the soul not to have its original from the earth, or to be mixed or made of any thing earthly; but had said, singularis est igitur quædam natura & vis animi, sejuncta ab his usitatis notisque naturis: whereby he tells us, he meant nothing but Aristotle's quinta essentia: which being unmixed, being that of which the gods and souls consisted, he calls it divinum cœleste, and concludes it eternal; it being, as he speaks, sejuncta ab omni mortali concretione. From which it is clear, that in all his inquiry about the substance of the soul, his thoughts went not beyond the four elements, or Aristotle's quinta essentia, to look for it. In all which there is nothing of immateriality, but quite the contrary.

He was willing to believe (as good and wise men have always been) that the soul was immortal; but for that, it is plain, he never thought of its immateriality, but as the eastern people do, who believe the soul to be immortal, but have nevertheless no thought, no conception of its immateriality. It is remarkable what a very considerable and judicious author says * in the case. No opinion, says he, has been so universally received as that of the immortality of the soul; but its immateriality is a truth, the knowledge whereof has not spread so far. And indeed it is extremely difficult to let into the mind of a Siamite the idea of a pure spirit. This the missionaries who have been longest among them, are positive in. All the pagans of the east do truly believe, that there remains something of a man after his death, which subsists independently and separately from his body. But they give extension and figure to that which remains, and attribute to it all the same members, all the same substances, both solid and liquid, which our bodies are composed of. They only suppose that the souls are of a matter subtile enough to escape being seen or handled.—Such were the shades and manes of the Greeks and the Romans. And it is by these figures of the souls, answerable to those of the bodies, that Virgil supposed Æneas knew Palinurus, Dido, and Anchises, in the other world.

This gentleman was not a man that travelled into those parts for his pleasure, and to have the opportunity to tell strange stories, collected by chance, when he returned: but one chosen on purpose (and he seems well chosen for the purpose) to inquire into the singularities of Siam. And he has so well acquitted himself of the commission, which his epistle dedica-

* Loubere du Royaume de Siam, T. 1. c. 19. §. 4.

tory tells us he had, to inform himself exactly of what was most remarkable there, that had we but such an account of other countries of the east, as he has given us of this kingdom, which he was an envoy to, we should be much better acquainted than we are, with the manners, notions, and religions of that part of the world inhabited by civilized nations, who want neither good sense nor acuteness of reason, though not cast into the mould of the logick and philosophy of our schools.

But to return to Cicero: it is plain that in his inquiries about the soul, his thoughts went not at all beyond matter. This the expressions that drop from him in several places of this book evidently show. For example, that the souls of excellent men and women ascended into heaven; of others, that they remained here on earth, c. 12. That the soul is hot, and warms the body: that, at its leaving the body, it penetrates, and divides, and breaks through our thick, cloudy, moist air: that it stops in the region of fire, and ascends no farther, the equality of warmth and weight making that its proper place, where it is nourished and sustained, with the same things wherewith the stars are nourished and sustained, and that by the convenience of its neighbourhood it shall there have a clearer view and fuller knowledge of the heavenly bodies, c. 19. That the soul also from this height shall have a pleasant and fairer prospect of the globe of the earth, the disposition of whose parts will then lie before it in one view, c. 20. That it is hard to determine what conformation, size, and place, the soul has in the body: that it is too subtile to be seen: that it is in the human body as in a house, or a vessel, or a receptacle, c. 22. All which are expressions that sufficiently evidence, that he who used them had not in his mind separated materiality from the idea of the soul.

It may perhaps be replied, that a great part of this which we find in chap. 19. is said upon the principles of those who would have the soul to be anima inflammata, inflamed air. I grant it. But it is also to be observed, that in this 19th, and the two following chapters, he does not only not deny, but even admits, that so material a thing as inflamed air may think.

The truth of the case in short is this: Cicero was willing to believe the soul immortal; but, when he sought in the nature of the soul itself something to establish this his belief into a certainty of it, he found himself at a loss. He confessed he knew not what the soul was; but the not knowing what it was, he argues, c. 22. was no reason to conclude it was not. And thereupon he proceeds to the repetition of what he had said in his 6th book, De Repub. concerning the soul. The argument, which, borrowed from Plato, he there makes use of, if it have any force in it, not only proves the soul to be immortal, but more than, I think, your lordship will allow to be true: for it proves it to be eternal, and without beginning, as well as without end: Neque nata certè est, & æterna est, says he.

Indeed from the faculties of the soul he concludes right, that it is of divine original; but as to the substance of the soul, he at the end of this discourse concerning its faculties, c. 25. as well as at this beginning of it, c. 22. is not ashamed to own his ignorance of what it is; Anima sit animus, ignisve, nescio; nec me pudet, ut istos, fateri nescire quod nesciam. Illud si ulla alia de re obscura affirmare possem, sive anima, sive ignis sit animus, eum jurarem esse divinum, c. 25. So that all the cer-

tainty he could attain to about the soul, was, that he was confident there was something divine in it, i. e. there were faculties in the soul that could not result from the nature of matter, but must have their original from a divine power; but yet those qualities, as divine as they were, he acknowledged might be placed in breath or fire, which, I think, your lordship will not deny to be material substances. So that all those divine qualities, which he so much and so justly extols in the soul, led him not, as appears, so much as to any the least thought of immateriality. This is demonstration, that he built them not upon an exclusion of materiality out of the soul; for he avowedly professes he does not know, but breath or fire might be this thinking thing in us; and in all his considerations about the substance of the soul itself, he stuck in air, or fire, or Aristotle's quinta essentia; for beyond those it is evident he went not.

But with all his proofs out of Plato, to whose authority he defers so much, with all the arguments his vast reading and great parts could furnish him with for the immortality of the soul, he was so little satisfied, so far from being certain, so far from any thought that he had, or could prove it, that he over and over again professes his ignorance and doubt of it. In the beginning he enumerates the several opinions of the philosophers, which he had well studied, about it: and then, full of uncertainty, says, Harum, sententiarum quæ vera sit, Deus aliquis viderit; quæ verisimillima, magna quæstio, c. 31. And towards the latter end, having gone them all over again, and one after another examined them, he professes himself still at a loss, not knowing on which to pitch, nor what to determine. Mentis acies, says he, seipsam intuens, nonnunquam hebescit, ob eamque causam contemplandi diligentiam amittimus. Itaque dubitans, circumspectans, hæsitans, multa adversa revertens, tanquam in rate in mari immenso, nostra vehitur oratio, c. 30. And to conclude this argument, when the person he introduces as discoursing with him, tells him he is resolved to keep firm to the belief of immortality; Tully answers, c. 32. Laudo id quidem, etsi nihil animis oportet considere: movemur enim sæpe aliquo acute concluso; labamus, mutamusque sententiam clarioribus etiam in rebus; in his est enim aliqua obscuritas.

So unmoveable is that truth delivered by the spirit of truth, that though the light of nature gave some obscure glimmering, some uncertain hopes of a future state; yet human reason could attain to no clearness, no certainty about it, but that it was JESUS CHRIST alone, who had brought life and immortality to light through the gospel*. Though we are now told, that to own the inability of natural reason to bring immortality to light, or which passes for the same, to own principles upon which the immateriality of the soul, (and, as it is urged, consequently its immortality) cannot be demonstratively proved, does lessen the belief of this article of revelation, which JESUS CHRIST alone has brought to light, and which consequently the scripture assures us is established and made certain only by revelation. This would not perhaps have seemed strange, from those who are justly complained of for slighting the revelation of the gospel, and therefore would not be much regarded, if they should contradict so plain a text of scripture, in favour of their all-sufficient reason: but what use the promoters of scepticism and infidelity, in an age so much suspected by your lordship, may make of what comes from one of your great authority and learning, may deserve your consideration.

* 2 Tim. i. 10.

And thus, my lord, I hope, I have satisfied you concerning Cicero's opinion about the soul, in his first book of Tusculan questions; which, though I easily believe, as your lordship says, you are no stranger to, yet I humbly conceive you have not shown, (and, upon a careful perusal of that treatise again, I think I may boldly say you cannot show) one word in it, that expresses any thing like a notion in Tully of the soul's immateriality, or its being an immaterial substance.

From what you bring out of Virgil, your lordship concludes, * That he, no more than Cicero, does me any kindness in this matter, being both assertors of the soul's immortality. My lord, were not the question of the soul's immateriality, according to custom, changed here into that of its immortality, which I am no less an assertor of than either of them, Cicero and Virgil do me all the kindness I desired of them in this matter; and that was to show, that they attributed the word spiritus to the soul of man, without any thought of its immateriality; and this the verses you yourself bring out of Virgil †,

Et cum frigida mors animâ seduxerit artus,
Omnibus umbra locis adero; dabis, improbe, pœnas;

confirm, as well as those I quoted out of his 6th book: and for this monsieur de la Loubere shall be my witness in the words above set down out of him; where he shows that there be those amongst the heathens of our days, as well as Virgil and others amongst the ancient Greeks and Romans, who thought the souls or ghosts of men departed did not die with the body, without thinking them to be perfectly immaterial; the latter being much more incomprehensible to them than the former. And what Virgil's notion of the soul is, and that corpus, when put in contradistinction to the soul, signifies nothing but the gross tenement of flesh and bones; is evident from this verse of his Æneid 6. where he calls the souls which yet were visible,

——— Tenues sine corpore vitas.

Your lordship's ‡ answer concerning what is said Eccles. xii. turns wholly upon Solomon's taking the soul to be immortal, which was not what I question: all that I quoted that place for, was to show, that spirit in English might properly be applied to the soul, without any notion of its immateriality, as רוח was by Solomon, which, whether he thought the souls of men to be immaterial, does little appear in that passage where he speaks of the souls of men and beasts together, as he does. But farther, what I contended for is evident from that place, in that the word spirit is there applied by our translators, to the souls of beasts, which your lordship, I think, does not rank amongst the immaterial, and consequently immortal spirits, though they have sense and spontaneous motion.

But you say, ‖ If the soul be not of itself a free thinking substance, you do not see what foundation there is in nature for a day of judgment. Ans. Though the heathen world did not of old, nor do to this day, see a foundation in nature for a day of judgment; yet in revelation, if that will satisfy your lordship, every one may see a foundation for a day of judgment, because God has positively declared it; though God has not by that revelation taught us, what the substance of the soul is; nor has any where said, that the soul of itself is a free agent. Whatsoever any created substance is, it is not of itself, but is by the good pleasure of its

* 1st Answer. † Æneid. 4. 385. ‡ 1st Answer. ‖ Ibid.

Creator: whatever degrees of perfection it has, it has from the bountiful hand of its maker. For it is true in a natural, as well as a spiritual sense, what St. Paul says, * "Not that we are sufficient of ourselves to think any thing as of ourselves, but our sufficiency is of God."

But your lordship, as I guess by your following words, would argue, that a material substance cannot be a free agent; whereby I suppose you only mean, that you cannot see or conceive how a solid substance should begin, stop, or change its own motion. To which give me leave to answer, that when you can make it conceivable, how any created, finite, dependant substance can move itself, or alter or stop its own motion, which it must to be a free agent; I suppose you will find it no harder for God to bestow this power on a solid than an unsolid created substance. Tully, in the place above quoted, † could not conceive this power to be in any thing but what was from eternity; Cum pateat igitur æternum id esse quod seipsum moveat, quis est qui hanc naturam animis esse tributam neget? But though you cannot see how any created substance, solid or not solid, can be a free agent, (pardon me, my lord, if I put in both, till your lordship please to explain it of either, and show the manner how either of them can, of itself, move itself or any thing else) yet I do not think you will so far deny men to be free agents, from the difficulty there is to see how they are free agents, as to doubt whether there be foundation enough for a day of judgment.

It is not for me to judge how far your lordship's speculations reach; but finding in myself nothing to be truer than what the wise Solomon tells me, ‡ "As thou knowest not what is the way of the spirit, nor how the bones do grow in the womb of her that is with child; even so thou knowest not the works of God, who maketh all things;" I gratefully receive and rejoice in the light of revelation, which sets me at rest in many things, the manner whereof my poor reason can by no means make out to me: Omnipotency, I know, can do any thing that contains in it no contradiction: so that I readily believe whatever God has declared, though my reason find difficulties in it, which it cannot master. As in the present case, God having revealed that there shall be a day of judgment, I think that foundation enough to conclude men are free enough to be made answerable for their actions, and to receive according to what they have done; though how man is a free agent, surpasses my explication or comprehension.

In answer to the place I brought out of St. Luke ||, your lordship asks, ** Whether from these words of our Saviour it follows, that a spirit is only an appearance? I answer, No; nor do I know who drew such an inference from them: but it follows, that in apparitions there is something that appears, and that which appears is not wholly immaterial; and yet this was properly called πνεῦμα, and was often looked upon, by those who called it πνεῦμα in Greek, and now call it spirit in English, to be the ghost or soul of one departed; which I humbly conceive justifies my use of the word spirit, for a thinking voluntary agent, whether material or immaterial.

Your lordship says, †† That I grant, that it cannot upon these principles be demonstrated, that the spiritual substance in us is immaterial: from whence you conclude, That then my grounds of certainty from ideas are plainly given up. This being a way of arguing that you often

* 2 Cor. iii. 5. † Tusculan Quæst. L. i. c. 23. ‡ Eccles. xi. 5.
|| C. xxiv. v. 39. ** 1st Answer. †† Ibid.

impossible for us, by the contemplation of our own ideas, without revelation, to discover, whether omnipotency has not given to some systems of matter fitly disposed a power to perceive and think, or else joined and fixed to matter so disposed a thinking immaterial substance: it being, in respect of our notions, not much more remote from our comprehension to conceive, that God can, if he pleases, superadd to matter a faculty of thinking, than that he should superadd to it another substance, with a faculty of thinking; since we know not wherein thinking consists, nor to what sort of substances the Almighty has been pleased to give that power, which cannot be in any created being, but merely by the good pleasure and bounty of the Creator. For I see no contradiction in it, that the first eternal thinking being should, if he pleased, give to certain systems of created senseless matter, put together as he thinks fit, some degrees of sense, perception, and thought: though, as I think, I have proved, lib. iv. ch. 10. §. 14, &c. it is no less than a contradiction to suppose matter (which is evidently in its own nature void of sense and thought) should be that eternal first-thinking being. What certainty of knowledge can any one have that some perceptions, such as, v. g. pleasure and pain, should not be in some bodies themselves, after a certain manner modified and moved, as well as that they should be in an immaterial substance, upon the motion of the parts of body? Body, as far as we can conceive, being able only to strike and affect body; and motion, according to the utmost reach of our ideas, being able to produce nothing but motion: so that when we allow it to produce pleasure or pain, or the idea of a colour or sound, we are fain to quit our reason, go beyond our ideas, and attribute it wholly to the good pleasure of

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make use of, I have often had occasion to consider it, and cannot after all see the force of this argument. I acknowledge that this or that proposition cannot upon my principles be demonstrated; ergo, I grant this proposition to be false, that certainty consists in the perception of the agreement or disagreement of ideas. For that is my ground of certainty, and till that be given up, my grounds of certainty are not given up.

our Maker. For since we must allow he has annexed effects to motion, which we can no way conceive motion able to produce, what reason have we to conclude, that he could not order them as well to be produced in a subject we cannot conceive capable of them, as well as in a subject we cannot conceive the motion of matter can any way operate upon? I say not this, that I would any way lessen the belief of the soul's immateriality: I am not here speaking of probability, but knowledge; and I think not only, that it becomes the modesty of philosophy not to pronounce magisterially, where we want that evidence that can produce knowledge; but also, that it is of use to us to discern how far our knowledge does reach; for the state we are at present in, not being that of vision, we must, in many things, content ourselves with faith and probability; and in the present question, about the immateriality of the soul, if our faculties cannot arrive at demonstrative certainty, we need not think it strange. All the great ends of morality and religion are well enough secured, without philosophical proofs of the soul's immateriality; since it is evident, that he who made us at the beginning to subsist here, sensible intelligent beings, and for several years continued us in such a state, can and will restore us to the like state of sensibility in another world, and make us capable there to receive the retribution he has designed to men, according to their doings in this life. And therefore it is not of such mighty necessity to determine one way or the other, as some, over-zealous for or against the immateriality of the soul, have been forward to make the world believe. Who, either on the one side, indulging too much their thoughts, immersed altogether in matter, can allow no existence to what is not material: or who, on the other side, finding not cogitation within the natural powers of matter, examined over and over again by the utmost intention of mind, have the confidence to conclude, that omnipotency itself cannot give perception and thought to a substance which has the modification of solidity. He that considers how hardly sensation is, in our thoughts, reconcileable to extended matter; or existence to any thing

that has no existence at all; will confess that he is very far from certainly knowing what his soul is. It is a point which seems to me to be put out of the reach of our knowledge: and he who will give himself leave to consider freely, and look into the dark and intricate part of each hypothesis, will scarce find his reason able to determine him fixedly for or against the soul's materiality. Since on which side soever he views it, either as an unextended substance, or as a thinking extended matter; the difficulty to conceive either will, whilst either alone is in his thoughts, still drive him to the contrary side. An unfair way which some men take with themselves; who, because of the inconceivableness of something they find in one, throw themselves violently into the contrary hypothesis, though altogether as unintelligible to an unbiassed understanding. This serves not only to shew the weakness and the scantiness of our knowledge, but the insignificant triumph of such sort of arguments, which, drawn from our own views, may satisfy us that we can find no certainty on one side of the question; but do not at all thereby help us to truth by running into the opposite opinion, which, on examination, will be found clogged with equal difficulties. For what safety, what advantage to any one is it, for the avoiding the seeming absurdities, and to him unsurmountable rubs he meets with in one opinion, to take refuge in the contrary, which is built on something altogether as inexplicable, and as far remote from his comprehension? It is past controversy, that we have in us something that thinks; our very doubts about what it is confirm the certainty of its being, though we must content ourselves in the ignorance of what kind of being it is: and it is in vain to go about to be sceptical in this, as it is unreasonable in most other cases to be positive against the being of any thing, because we cannot comprehend its nature. For I would fain know what substance exists, that has not something in it which manifestly baffles our understandings. Other spirits, who see and know the nature and inward constitution of things, how much must they exceed us in knowledge? To which if we add larger comprehension, which ena-

bles them at one glance to see the connexion and agreement of very many ideas, and readily supplies to them the intermediate proofs, which we by single and slow steps, and long poring in the dark, hardly at last find out, and are often ready to forget one before we have hunted out another; we may guess at some part of the happiness of superior ranks of spirits, who have a quicker and more penetrating sight, as well as a larger field of knowledge. But to return to the argument in hand; our knowledge, I say, is not only limited to the paucity and imperfections of the ideas we have, and which we employ it about, but even comes short of that too. But how far it reaches, let us now inquire.

How far our knowledge reaches.

§. 7. The affirmations or negations we make concerning the ideas we have, may, as I have before intimated in general, be reduced to these four sorts, viz. identity, co-existence, relation, and real existence. I shall examine how far our knowledge extends in each of these.

1. Our knowledge of identity and diversity, as far as our ideas.

§. 8. First, as to identity and diversity, in this way of agreement or disagreement of our ideas, our intuitive knowledge is as far extended as our ideas themselves; and there can be no idea in the mind, which it does not presently, by an intuitive knowledge, perceive to be what it is, and to be different from any other.

2. Of co-existence, a very little way.

§. 9. Secondly, as to the second sort, which is the agreement or disagreement of our deas in co-existence; in this our knowledge is very short, though in this consists the greatest and most material part of our knowledge concerning substances. For our ideas of the species of substances being, as I have showed, nothing but certain collections of simple ideas united in one subject, and so co-existing together; v. g. our idea of flame is a body hot, luminous, and moving upward; of gold, a body heavy to a certain degree, yellow, malleable, and fusible: these, or some such complex ideas as these in men's minds, do these two names of the different substances, flame and gold, stand for. When we would know any

thing farther concerning these, or any other sort of substances, what do we inquire, but what other qualities or power these substances have or have not? Which is nothing else but to know what other simple ideas do or do not co-exist with those that make up that complex idea.

Because the connexion between most simple ideas is unknown.

§. 10. This, how weighty and considerable a part soever of human science, is yet very narrow, and scarce any at all. The reason whereof is, that the simple ideas, whereof our complex ideas of substances are made up, are, for the most part, such as carry with them, in their own nature, no visible necessary connexion or inconsistency with any other simple ideas, whose co-existence with them we would inform ourselves about.

Especially of secondary qualities.

§. 11. The ideas that our complex ones of substances are made up of, and about which our knowledge concerning substances is most employed, are those of their secondary qualities: which depending all (as has been shown) upon the primary qualities of their minute and insensible parts; or if not upon them, upon something yet more remote from our comprehension; it is impossible we should know which have a necessary union or inconsistency one with another: for not knowing the root they spring from, not knowing what size, figure, and texture of parts they are, on which depend, and from which result, those qualities which make our complex idea of gold; it is impossible we should know what other qualities result from, or are incompatible with, the same constitution of the insensible parts of gold, and so consequently must always co-exist with that complex idea we have of it, or else are inconsistent with it.

Because all connexion between any secondary and primary qualities is undiscoverable.

§. 12. Besides this ignorance of the primary qualities of the insensible parts of bodies, on which depend all their secondary qualities, there is yet another and more incurable part of ignorance, which sets us more remote from a certain knowledge of the co-existence or in-co-existence (if I may

so say) of different ideas in the same subject; and that is, that there is no discoverable connexion between any secondary quality and those primary qualities which it depends on.

§. 13. That the size, figure, and motion of one body should cause a change in the size, figure, and motion of another body, is not beyond our conception: the separation of the parts of one body upon the intrusion of another; and the change from rest to motion upon impulse; these and the like seem to have some connexion one with another. And if we knew these primary qualities of bodies, we might have reason to hope we might be able to know a great deal more of these operations of them one with another: but our minds not being able to discover any connexion betwixt these primary ualities of bodies and the sensations that are produced in us by them, we can never be able to establish certain and undoubted rules of the consequences or co-existence of any secondary qualities, though we could discover the size, figure, or motion of those invisible parts which immediately produce them. We are so far from knowing what figure, size, or motion of parts produce a yellow colour, a sweet taste, or a sharp sound, that we can by no means conceive how any size, figure, or motion of any particles, can possibly produce in us the idea of any colour, taste, or sound whatsoever; there is no conceivable connexion betwixt the one and the other.

§. 14. In vain therefore shall we endeavour to discover by our ideas (the only true way of certain and universal knowledge) what other ideas are to be found constantly joined with that of our complex idea of any substance: since we neither know the real constitution of the minute parts on which their qualities do depend; nor, did we know them, could we discover any necessary connexion between them and any of the secondary qualities; which is necessary to be done before we can certainly know their necessary co-existence. So that let our complex idea of any species of substances be what it will, we can hardly, from the simple ideas contained in it, certainly determine the necessary co-existence of any other quality whatsoever. Our knowledge

in all these inquiries reaches very little farther than our experience. Indeed, some few of the primary qualities have a necessary dependence and visible connexion one with another, as figure necessarily supposes extension: receiving or communicating motion by impulse, supposes solidity. But though these and perhaps some other of our ideas have, yet there are so few of them, that have a visible connexion one with another, that we can by intuition or demonstration discover the co-existence of very few of the qualities are to be found united in substances: and we are left only to the assistance of our senses, to make known to us what qualities they contain. For of all the qualities that are co-existent in any subject, without this dependence and evident connexion of their ideas one with another, we cannot know certainly any two to co-exist any farther than experience, by our senses, informs us. Thus though we see the yellow colour, and upon trial find the weight, malleableness, fusibility, and fixedness, that are united in a piece of gold; yet because no one of these ideas has any evident dependence, or necessary connexion with the other, we cannot certainly know, that where any four of these are, the fifth will be there also, how highly probable soever it may be; because the highest probability amounts not to certainty, without which there can be no true knowledge. For this co-existence can be no farther known than it is perceived; and it cannot be perceived but either in particular subjects, by the observation of our senses, or in general, by the necessary connexion of the ideas themselves.

Of repugnancy to co-exist, larger.

§. 15. As to the incompatibility or repugnancy to co-existence, we may know, that any subject may have of each sort of primary qualities but one particular at once; v. g. each particular extension, figure, number of parts, motion, excludes all other of each kind. The like also is certain of all sensible ideas peculiar to each sense; for whatever of each kind is present in any subject, excludes all other of that sort; v. g. no one subject can have two smells or two colours at the same time. To this perhaps will be said, Has not an opal, or the infusion of

lignum nephriticum, two colours at the same time? To which I answer, that these bodies, to eyes differently placed, may at the same time afford different colours: but I take liberty also to say, that to eyes differently placed, it is different parts of the object that reflect the particles of light: and therefore it is not the same part of the object, and so not the very same subject, which at the same time appears both yellow and azure. For it is as impossible that the very same particle of any body should at the same time differently modify or reflect the rays of light, as that it should have two different figures and textures at the same time.

Of the co-existence of powers, a very little way.

§. 16. But as to the powers of substances to change the sensible qualities of other bodies, which make a great part of our inquiries about them, and is no inconsiderable branch of our knowledge; I doubt, as to these, whether our knowledge reaches much farther than our experience; or whether we can come to the discovery of most of these powers, and be certain that they are in any subject, by the connexion with any of those ideas which to us make its essence. Because the active and passive powers of bodies, and their ways of operating, consisting in a texture and motion of parts, which we cannot by any means come to discover; it is but in very few cases, we can be able to perceive their dependence on, or repugnance to, any of those ideas which make our complex one of that sort of things. I have here instanced in the corpuscularian hypothesis, as that which is thought to go farthest in an intelligible explication of those qualities of bodies; and I fear the weakness of human understanding is scarce able to substitute another, which will afford us a fuller and clearer discovery of the necessary connexion and co-existence of the powers which are to be observed united in several sorts of them. This at least is certain, that which-ever hypothesis be clearest and truest, (for of that it is not my business to determine) our knowledge concerning corporeal substances will be very little advanced by any of them, till we are made to see what qualities and powers of bodies have a necessary connexion or repug-

nancy one with another; which in the present state of philosophy, I think, we know but to a very small degree: and I doubt whether, with those faculties we have, we shall ever be able to carry our general knowledge (I say not particular experience) in this part much farther. Experience is that which in this part we must depend on. And it were to be wished that it were more improved. We find the advantages some men's generous pains have this way brought to the stock of natural knowledge. And if others, especially the philosophers by fire, who pretend to it, had been so wary in their observations, and sincere in their reports, as those who call themselves philosophers ought to have been; our acquaintance with the bodies here about us, and our insight into their powers and operations, had been yet much greater.

Of spirits, yet narrower.

§. 17. If we are at a loss in respect of the powers and operations of bodies, I think it is easy to conclude, we are much more in the dark in reference to the spirits; whereof we naturally have no ideas, but what we draw from that of our own, by reflecting on the operations of our own souls within us, as far as they can come within our observation. But how inconsiderable a rank the spirits that inhabit our bodies hold amongst those various and possibly innumerable kinds of nobler beings; and how far short they come of the endowments and perfections of cherubims and seraphims, and infinite sorts of spirits above us; is what by a transient hint, in another place, I have offered to my reader's consideration.

3. Of other relations, it is not easy to say how far.

§. 18. As to the third sort of our knowledge, viz. the agreement or disagreement of any of our ideas in any other relation: this, as it is the largest field of our knowledge, so it is hard to determine how far it may extend: because the advances that are made in this part of knowledge, depending on our sagacity in finding intermediate ideas, that may show the relations and habitudes of ideas, whose co-existence is not considered, it is a hard matter to tell when we are at an end of such discoveries; and when reason has all the helps it is

capable of, for the finding of proofs, or examining the agreement or disagreement of remote ideas. They that are ignorant of algebra cannot imagine the wonders in this kind are to be done by it: and what farther improvements and helps, advantageous to other parts of knowledge, the sagacious mind of man may yet find out, it is not easy to determine. This at least I believe, that the ideas of quantity are not those alone that are capable of demonstration and knowledge; and that other, and perhaps more useful parts of contemplation, would afford us certainty, if vices, passions, and domineering interest did not oppose or menace such endeavours.

Morality capable of demonstration.

The idea of a supreme being, infinite in power, goodness, and wisdom, whose workmanship we are, and on whom we depend; and the idea of ourselves, as understanding rational beings; being such as are clear in us, would, I suppose, if duly considered and pursued, afford such foundations of our duty and rules of action, as might place morality amongst the sciences capable of demonstration; wherein I doubt not but from self-evident propositions, by necessary consequences, as incontestable as those in mathematics, the measures of right and wrong might be made out to any one that will apply himself with the same indifferency and attention to the one, as he does to the other of these sciences. The relation of other modes may certainly be perceived, as well as those of number and extension: and I cannot see why they should not also be capable of demonstration, if due methods were thought on to examine or pursue their agreement or disagreement. Where there is no property, there is no injustice, is a proposition as certain as any demonstration in Euclid: for the idea of property being a right to any thing; and the idea to which the name injustice is given, being the invasion or violation of that right; it is evident, that these ideas being thus established, and these names annexed to them, I can as certainly know this proposition to be true, as that a triangle has three angles equal to two right ones. Again, "no government allows absolute liberty:" The idea of government being the establishment of society

upon certain rules or laws which require conformity to them; and the idea of absolute liberty being for any one to do whatever he pleases; I am as capable of being certain of the truth of this proposition, as of any in the mathematics.

Two things have made moral ideas thought incapable of demonstration: their complexedness, and want of sensible representations.

§. 19. That which in this respect has given the advantage to the ideas of quantity, and made them thought more capable of certainty and demonstration, is,

First, that they can be set down and represented by sensible marks, which have a greater and nearer correspondence with them than any words or sounds whatsoever. Diagrams drawn on paper are copies of the ideas in the mind, and not liable to the uncertainty that words carry in their signification. An angle, circle, or square, drawn in lines, lies open to the view, and cannot be mistaken: it remains unchangeable, and may at leisure be considered and examined, and the demonstration be revised, and all the parts of it may be gone over more than once without any danger of the least change in the ideas. This cannot be thus done in moral ideas, we have no sensible marks that resemble them, whereby we can set them down; we have nothing but words to express them by; which though, when written, they remain the same, yet the ideas they stand for may change in the same man; and it is very seldom that they are not different in different persons.

Secondly, another thing that makes the greater difficulty in ethics, is, that moral ideas are commonly more complex than those of the figures ordinarily considered in mathematics. From whence these two inconveniencies follow: First, that their names are of more uncertain signification, the precise collection of simple ideas they stand for not being so easily agreed on, and so the sign that is used for them in communication always, and in thinking often, does not steadily carry with it the same idea. Upon which the same disorder, confusion, and error follow, as would if a man, going to demonstrate something of an heptagon, should, in the diagram he took to do it, leave out one of the angles,

or by oversight make the figure with one angle more than the name ordinarily imported, or he intended it should, when at first he thought of his demonstration. This often happens, and is hardly avoidable in very complex moral ideas, where the same name being retained, one angle, i. e. one simple idea is left out or put in the complex one, (still called by the same name) more at one time than another. Secondly, from the complexedness of these moral ideas, there follows another inconvenience, viz. that the mind cannot easily retain those precise combinations, so exactly and perfectly as is necessary in the examination of the habitudes and correspondencies, agreements or disagreements, of several of them one with another; especially where it is to be judged of by long deductions, and the intervention of several other complex ideas, to show the agreement or disagreement of two remote ones.

The great help against this which mathematicians find in diagrams and figures, which remain unalterable in their draughts, is very apparent, and the memory would often have great difficulty otherwise to retain them so exactly, whilst the mind went over the parts of them step by step, to examine their several correspondencies. And though in casting up a long sum either in addition, multiplication, or division, every part be only a progression of the mind, taking a view of its own ideas, and considering their agreement or disagreement; and the resolution of the question be nothing but the result of the whole, made up of such particulars, whereof the mind has a clear perception: yet without setting down the several parts by marks, whose precise significations are known, and by marks that last and remain in view when the memory had let them go, it would be almost impossible to carry so many different ideas in the mind, without confounding or letting slip some parts of the reckoning, and thereby making all our reasonings about it useless. In which case, the cyphers or marks help not the mind at all to perceive the agreement of any two or more numbers, their equalities or proportions: that the mind has only by intuition of its own ideas of the numbers themselves. But the nume-

rical characters are helps to the memory, to record and retain the several ideas about which the demonstration is made, whereby a man may know how far his intuitive knowledge, in surveying several of the particulars, has proceeded; that so he may without confusion go on to what is yet unknown, and at last have in one view before him the result of all his perceptions and reasonings.

Remedies of those difficulties.

§. 20. One part of these disadvantages in moral ideas, which has made them be thought not capable of demonstration, may in a good measure be remedied by definitions, setting down that collection of simple ideas, which every term shall stand for, and then using the terms steadily and constantly for that precise collection. And what methods algebra, or something of that kind, may hereafter suggest, to remove the other difficulties, it is not easy to foretel. Confident I am, that if men would, in the same method, and with the same indifferency, search after moral, as they do mathematical truths, they would find them have a stronger connexion one with another, and a more necessary consequence from our clear and distinct ideas, and to come nearer perfect demonstration than is commonly imagined. But much of this is not to be expected, whilst the desire of esteem, riches, or power, makes men espouse the well-endowed opinions in fashion, and then seek arguments either to make good their beauty, or varnish over and cover their deformity: nothing being so beautiful to the eye, as truth is to the mind; nothing so deformed and irreconcileable to the understanding as a lye. For though many a man can with satisfaction enough own a no very handsome wife in his bosom; yet who is bold enough openly to avow, that he has espoused a falsehood, and received into his breast so ugly a thing as a lye? Whilst the parties of men cram their tenets down all men's throats, whom they can get into their power, without permitting them to examine their truth or falsehood, and will not let truth have fair play in the world, nor men the liberty to search after it; what improvements can be expected of this kind? What greater light can be hoped

for in the moral sciences? The subject part of mankind in most places might, instead thereof, with Egyptian bondage expect Egyptian darkness, were not the candle of the Lord set up by himself in men's minds, which it is impossible for the breath or power of man wholly to extinguish.

4. Of real existence: we have an intuitive knowledge of our own; demonstrative, of God's; sensitive, of some few other things.

§. 21. As to the fourth sort of our knowledge, viz. of the real actual existence of things, we have an intuitive knowledge of our own existence; and a demonstrative knowledge of the existence of a God; of the existence of any thing else, we have no other but a sensitive knowledge, which extends not beyond the objects present to our senses.

Our ignorance great.

§. 22. Our knowledge being so narrow, as I have showed, it will perhaps give us some light into the present state of our minds, if we look a little into the dark side, and take a view of our ignorance: which, being infinitely larger than our knowledge, may serve much to the quieting of disputes, and improvement of useful knowledge; if discovering how far we have clear and distinct ideas, we confine our thoughts within the contemplation of those things that are within the reach of our understandings, and launch not out into that abyss of darkness (where we have not eyes to see, nor faculties to perceive any thing) out of a presumption, that nothing is beyond our comprehension. But to be satisfied of the folly of such a conceit, we need not go far. He that knows any thing, knows this in the first place, that he need not seek long for instances of his ignorance. The meanest and most obvious things that come in our way, have dark sides, that the quickest sight cannot penetrate into. The clearest and most enlarged understandings of thinking men find themselves puzzled, and at a loss, in every particle of matter. We shall the less wonder to find it so, when we consider the causes of our ignorance; which, from what has been said, I suppose, will be found to be these three:

First, want of ideas.

Secondly, want of a discoverable connexion between the ideas we have.

Thirdly, want of tracing and examining our ideas.

§. 23. First, there are some things, and those not a few, that we are ignorant of, for want of ideas.

First, one cause of it want of ideas, either such as we have no conception of, or such as particularly we have not.

First; all the simple ideas we have, are confined (as I have shown) to those we receive from corporeal objects by sensation, and from the operations of our own minds as the objects of reflection. But how much these few and narrow inlets are disproportionate to the vast whole extent of all beings, will not be hard to persuade those, who are not so foolish as to think their span the measure of all things. What other simple ideas it is possible the creatures in other parts of the universe may have, by the assistance of senses and faculties more, or perfecter, than we have, or different from ours, it is not for us to determine. But to say, or think there are no such, because we conceive nothing of them, is no better an argument, than if a blind man should be positive in it, that there was no such thing as sight and colours, because he had no manner of idea of any such thing, nor could by any means frame to himself any notions about seeing. The ignorance and darkness that is in us, no more hinders nor confines the knowledge that is in others, than the blindness of a mole is an argument against the quicksightedness of an eagle. He that will consider the infinite power, wisdom, and goodness of the Creator of all things, will find reason to think it was not all laid out upon so inconsiderable, mean, and impotent a creature as he will find man to be; who, in all probability, is one of the lowest of all intellectual beings. What faculties therefore other species of creatures have, to penetrate into the nature and inmost constitutions of things; what ideas they may receive of them, far different from ours; we know not. This we know, and certainly find, that we want several other views of them, besides those we have, to make discoveries of them more perfect. And we may be convinced that the ideas we can attain to by our faculties,

are very disproportionate to things themselves, when a positive, clear, distinct one of substance itself, which is the foundation of all the rest, is concealed from us. But want of ideas of this kind being a part, as well as cause of our ignorance, cannot be described. Only this, I think, I may confidently say of it, that the intellectual and sensible world are in this perfectly alike; that that part, which we see of either of them, holds no proportion with what we see not; and whatsoever we can reach with our eyes, or our thoughts, of either of them, is but a point, almost nothing in comparison with the rest.

Because of their remoteness; or,

§. 24. Secondly, another great cause of ignorance is the want of ideas we are capable of. As the want of ideas, which our faculties are not able to give us, shuts us wholly from those views of things, which it is reasonable to think other beings, perfecter than we, have, of which we know nothing; so the want of ideas I now speak of keeps us in ignorance of things we conceive capable of being known to us. Bulk, figure, and motion, we have ideas of. But though we are not without ideas of these primary qualities of bodies in general, yet not knowing what is the particular bulk, figure, and motion, of the greatest part of the bodies of the universe; we are ignorant of the several powers, efficacies, and ways of operation, whereby the effects, which we daily see, are produced. These are hid from us in some things, by being too remote; and in others, by being too minute. When we consider the vast distance of the known and visible parts of the world, and the reasons we have to think, that what lies within our ken is but a small part of the universe, we shall then discover an huge abyss of ignorance. What are the particular fabrics of the great masses of matter, which make up the whole stupendous frame of corporeal beings, how far they are extended, what is their motion, and how continued or communicated, and what influence they have one upon another, are contemplations that at first glimpse our thoughts lose themselves in. If we narrow our contemplations, and confine our thoughts to this little canton, I mean this system of our sun, and the

grosser masses of matter, that visibly move about it; what several sorts of vegetables, animals, and intellectual corporeal beings, infinitely different from those of our little spot of earth, may there probably be in the other planets, to the knowledge of which, even of their outward figures and parts, we can no way attain, whilst we are confined to this earth; there being no natural means, either by sensation or reflection, to convey their certain ideas into our minds? They are out of the reach of those inlets of all our knowledge: and what sorts of furniture and inhabitants those mansions contain in them, we cannot so much as guess, much less have clear and distinct ideas of them.

Because of their minuteness.

§. 25. If a great, nay, far the greatest part of the several ranks of bodies in the universe, escape our notice by their remoteness, there are others that are no less concealed from us by their minuteness. These insensible corpuscles being the active parts of matter, and the great instruments of nature, on which depend not only all their secondary qualities, but also most of their natural operations; our want of precise distinct ideas of their primary qualities, keeps us in an incurable ignorance of what we desire to know about them. I doubt not but if we could discover the figure, size, texture, and motion of the minute constituent parts of any two bodies, we should know without trial several of their operations one upon another, as we do now the properties of a square or a triangle. Did we know the mechanical affections of the particles of rhubarb, hemlock, opium, and a man, as a watch-maker does those of a watch, whereby it performs its operations, and of a file which by rubbing on them will alter the figure of any of the wheels; we should be able to tell before-hand, that rhubarb will purge, hemlock kill, and opium make a man sleep; as well as a watch-maker can, that a little piece of paper laid on the balance will keep the watch from going, till it be removed; or that, some small part of it being rubbed by a file, the machine would quite lose its motion, and the watch go no more. The dissolving of silver in aqua fortis, and gold in aqua regia, and not *vice versa*,

would be then perhaps no more difficult to know, than it is to a smith to understand why the turning of one key will open a lock, and not the turning of another. But whilst we are destitute of senses acute enough to discover the minute particles of bodies, and to give us ideas of their mechanical affections, we must be content to be ignorant of their properties and ways of operation; nor can we be assured about them any farther, than some few trials we make are able to reach. But whether they will succeed again another time, we cannot be certain. This hinders our certain knowledge of universal truths concerning natural bodies; and our reason carries us herein very little beyond particular matter of fact.

Hence no science of bodies.

§. 26. And therefore I am apt to doubt, that how far soever human industry may advance useful and experimental philosophy in physical things, scientifical will still be out of our reach; because we want perfect and adequate ideas of those very bodies which are nearest to us, and most under our command. Those which we have ranked into classes under names, and we think ourselves best acquainted with, we have but very imperfect and incomplete ideas of. Distinct ideas of the several sorts of bodies that fall under the examination of our senses perhaps we may have: but adequate ideas, I suspect, we have not of any one amongst them. And though the former of these will serve us for common use and discourse, yet whilst we want the latter, we are not capable of scientifical knowledge; nor shall ever be able to discover general, instructive, unquestionable truths concerning them. Certainty and demonstration are things we must not, in these matters, pretend to. By the colour, figure, taste, and smell, and other sensible qualities, we have as clear and distinct ideas of sage and hemlock, as we have of a circle and a triangle: but having no ideas of the particular primary qualities of the minute parts of either of these plants, nor of other bodies which we would apply them to, we cannot tell what effects they will produce; nor when we see those effects, can we so much as guess, much less know, their manner of

production. Thus having no ideas of the particular mechanical affections of the minute parts of bodies that are within our view and reach, we are ignorant of their constitutions, powers, and operations: and of bodies more remote we are yet more ignorant, not knowing so much as their very outward shapes, or the sensible and grosser parts of their constitutions.

§. 27. This, at first, will show us how disproportionate our knowledge is to the whole extent even of material beings; to which if we add the consideration of that infinite number of spirits that may be and probably are, which are yet more remote from our knowledge, whereof we have no cognizance, nor can frame to ourselves any distinct ideas of their several ranks and sorts, we shall find this cause of ignorance conceal from us, in an impenetrable obscurity, almost the whole intellectual world; a greater certainly, and more beautiful world than the material. For bating some very few, and those, if I may so call them, superficial ideas of spirit, which by reflection we get of our own, and from thence the best we can collect of the father of all spirits, the eternal independent author of them and us and all things; we have no certain information, so much as of the existence of other spirits, but by revelation. Angels of all sorts are naturally beyond our discovery: and all those intelligences whereof it is likely there are more orders than of corporeal substances, are things whereof our natural faculties give us no certain account at all. That there are minds and thinking beings in other men as well as himself, every man has a reason, from their words and actions, to be satisfied: and the knowledge of his own mind cannot suffer a man, that considers, to be ignorant, that there is a God. But that there are degrees of spiritual beings between us and the great God, who is there that by his own search and ability can come to know? Much less have we distinct ideas of their different natures, conditions, states, powers, and several constitutions wherein they agree or differ from one another, and from us. And therefore in what concerns their different species and properties, we are under an absolute ignorance.

Much less of spirits.

Secondly, want of a discoverable connexion between ideas we have.

§. 28. Secondly, what a small part of the substantial beings that are in the universe, the want of ideas leaves open to our knowledge, we have seen. In the next place, another cause of ignorance, of no less moment, is a want of a discoverable connexion between those ideas we have. For wherever we want that, we are utterly incapable of universal and certain knowledge; and are, in the former case, left only to observation and experiment: which, how narrow and confined it is, how far from general knowledge, we need not be told. I shall give some few instances of this cause of our ignorance, and so leave it. It is evident that the bulk, figure, and motion of several bodies about us, produce in us several sensations, as of colours, sounds, tastes, smells, pleasure and pain, &c. These mechanical affections of bodies having no affinity at all with those ideas they produce in us (there being no conceivable connexion between any impulse of any sort of body and any perception of a colour or smell, which we find in our minds) we can have no distinct knowledge of such operations beyond our experience; and can reason no otherwise about them, than as effects produced by the appointment of an infinitely wise agent, which perfectly surpass our comprehensions. As the ideas of sensible secondary qualities which we have in our minds, can by us be no way deduced from bodily causes, nor any correspondence or connexion be found between them and those primary qualities which (experience shows us) produce them in us; so on the other side, the operation of our minds upon our bodies is as inconceivable. How any thought should produce a motion in body is as remote from the nature of our ideas, as how any body should produce any thought in the mind. That it is so, if experience did not convince us, the consideration of the things themselves would never be able in the least to discover to us. These, and the like, though they have a constant and regular connexion, in the ordinary course of things; yet that connexion being not discoverable in the ideas themselves, which appearing to have no necessary dependence one on another, we

can attribute their connexion to nothing else but the arbitrary determination of that all-wise agent, who has made them to be, and to operate as they do, in a way wholly above our weak understandings to conceive.

§. 29. In some of our ideas there are certain relations, habitudes, and connexions, so visibly included in the nature of the ideas themselves, that we cannot conceive them separable from them by any power whatsoever. And in these only we are capable of certain and universal knowledge. Thus the idea of a right-lined triangle necessarily carries with it an equality of its angles to two right ones. Nor can we conceive this relation, this connexion of these two ideas, to be possibly mutable, or to depend on any arbitrary power, which of choice made it thus, or could make it otherwise. But the coherence and continuity of the parts of matter; the production of sensation in us of colours and sounds, &c. by impulse and motion; nay, the original rules and communication of motion being such, wherein we can discover no natural connexion with any ideas we have; we cannot but ascribe them to the arbitrary will and good pleasure of the wise architect. I need not, I think, here mention the resurrection of the dead, the future state of this globe of earth, and such other things, which are by every one acknowledged to depend wholly on the determination of a free agent. The things that, as far as our observation reaches, we constantly find to proceed regularly, we may conclude do act by a law set them; but yet by a law, that we know not: whereby, though causes work steadily, and effects constantly flow from them, yet their connexions and dependencies being not discoverable in our ideas, we can have but an experimental knowledge of them. From all which it is easy to perceive what a darkness we are involved in, how little it is of being, and the things that are, that we are capable to know. And therefore we shall do no injury to our knowledge, when we modestly think with ourselves, that we are so far from being able to comprehend the whole nature of the universe, and all the things contained in it, that we are not capable of a philosophical knowledge of the

Instances.

bodies that are about us, and make a part of us: concerning their secondary qualities, powers, and operations, we can have no universal certainty. Several effects come every day within the notice of our senses, of which we have so far sensitive knowledge; but the causes, manner, and certainty of their production, for the two foregoing reasons, we must be content to be very ignorant of. In these we can go no farther than particular experience informs us of matter of fact, and by analogy to guess what effects the like bodies are, upon other trials, like to produce. But as to a perfect science of natural bodies (not to mention spiritual beings) we are, I think, so far from being capable of any such thing, that I conclude it lost labour to seek after it.

Thirdly, want of tracing our ideas.

§. 30. Thirdly, where we have adequate ideas, and where there is a certain and discoverable connexion between them, yet we are often ignorant, for want of tracing those ideas which we have, or may have; and for want of finding out those intermediate ideas, which may show us what habitude of agreement or disagreement they have one with another. And thus many are ignorant of mathematical truths, not out of any imperfection of their faculties, or uncertainty in the things themselves; but for want of application in acquiring, examining, and by due ways comparing those ideas. That which has most contributed to hinder the due tracing of our ideas, and finding out their relations, and agreements or disagreements one with another, has been, I suppose, the ill use of words. It is impossible that men should ever truly seek, or certainly discover the agreement or disagreement of ideas themselves, whilst their thoughts flutter about, or stick only in sounds of doubtful and uncertain significations. Mathematicians abstracting their thoughts from names, and accustoming themselves to set before their minds the ideas themselves that they would consider, and not sounds instead of them, have avoided thereby a great part of that perplexity, puddering and confusion, which has so much hindered men's progress in other parts of knowledge. For whilst they stick in words of undetermined and uncertain significa-

tion, they are unable to distinguish true from false, certain from probable, consistent from inconsistent, in their own opinions. This having been the fate or misfortune of a great part of men of letters, the increase brought into the stock of real knowledge, has been very little, in proportion to the schools, disputes, and writings, the world has been filled with; whilst students being lost in the great wood of words, knew not whereabout they were, how far their discoveries were advanced, or what was wanting in their own or the general stock of knowledge. Had men, in the discoveries of the material, done as they have in those of the intellectual world, involved all in the obscurity of uncertain and doubtful ways of talking, volumes writ of navigation and voyages, theories and stories of zones and tides, multiplied and disputed; nay, ships built, and fleets sent out, would never have taught us the way beyond the line; and the Antipodes would be still as much unknown, as when it was declared heresy to hold there were any. But having spoken sufficiently of words, and the ill or careless use that is commonly made of them, I shall not say any thing more of it here.

§. 31. Hitherto we have examined the extent of our knowledge, in respect of the several sorts of beings that are. There is another extent of it, in respect of universality, which will also deserve to be considered; and in this regard, our knowledge follows the nature of our ideas. If the ideas are abstract, whose agreement or disagreement we perceive, our knowledge is universal. For what is known of such general ideas, will be true of every particular thing, in whom that essence, i. e. that abstract idea is to be found; and what is once known of such ideas, will be perpetually and for ever true. So that as to all general knowledge, we must search and find it only in our minds, and it is only the examining of our own ideas, that furnisheth us with that. Truths belonging to essences of things, (that is, to abstract ideas) are eternal, and are to be found out by the contemplation only of those essences: as the existences of things are to be known only from experience. But having

Extent in respect to universality.

more to say of this in the chapters where I shall speak of general and real knowledge, this may here suffice as to the universality of our knowledge in general.

CHAP. IV.

Of the Reality of Knowledge.

Objection. Knowledge placed in ideas may be all bare vision.

§. 1. I DOUBT not but my reader by this time may be apt to think, that I have been all this while only building a castle in the air; and be ready to say to me, "To what purpose all this stir? Know-"ledge, say you, is only the perception of "the agreement or disagreement of our own ideas: but "who knows what those ideas may be? Is there any "thing so extravagant, as the imaginations of men's "brains? Where is the head that has no chimeras in "it? Or if there be a sober and a wise man, what dif-"ference will there be, by your rules, between his "knowledge and that of the most extravagant fancy in "the world? They both have their ideas, and perceive "their agreement and disagreement one with another. "If there be any difference between them, the advan-"tage will be on the warm-headed man's side, as hav-"ing the more ideas, and the more lively: and so, by "your rules, he will be the more knowing. If it be "true, that all knowledge lies only in the perception "of the agreement or disagreement of our own ideas, "the visions of an enthusiast, and the reasonings of a "sober man, will be equally certain. It is no matter "how things are; so a man observe but the agreement "of his own imaginations, and talk conformably, it is "all truth, all certainty. Such castles in the air will "be as strong holds of truth, as the demonstrations of "Euclid. That an harpy is not a centaur is by this "way as certain knowledge, and as much a truth, as "that a square is not a circle.

" But of what use is all this fine knowledge of men's " own imaginations, to a man that inquires after the " reality of things? It matters not what men's fancies " are, it is the knowledge of things that is only to be " prized; it is this alone gives a value to our reason- " ings, and preference to one man's knowledge over " another's, that it is of things as they really are, and " not of dreams and fancies."

§. 2. To which I answer, that if our knowledge of our ideas terminate in them, and reach no farther, where there is something farther intended, our most serious thoughts will be of little more use than the reveries of a crazy brain; and the truths built thereon of no more weight, than the discourse of a man, who sees things clearly in a dream, and with great assurance utters them. But, I hope, before I have done, to make it evident, that this way of certainty, by the knowledge of our own ideas, goes a little farther than bare imagination: and I believe it will appear, that all the certainty of general truths a man has, lies in nothing else.

Answ. Not so, where ideas agree with things.

§. 3. It is evident the mind knows not things immediately, but only by the intervention of the ideas it has of them. Our knowledge therefore is real, only so far as there is a conformity between our ideas and the reality of things. But what shall be here the criterion? How shall the mind, when it perceives nothing but its own ideas, know that they agree with things themselves? This, though it seems not to want difficulty, yet, I think, there be two sorts of ideas, that, we may be assured, agree with things.

§. 4. First, the first are simple ideas, which since the mind, as has been showed, can by no means make to itself, must necessarily be the product of things operating on the mind in a natural way, and producing therein those perceptions which by the wisdom and will of our maker they are ordained and adapted to. From whence it follows, that simple ideas are not fictions of our fancies, but the natural and regular productions of things without us, really operating upon us, and so carry with them all the

As, 1. All simple ideas do.

conformity which is intended, or which our state requires: for they represent to us things under those appearances which they are fitted to produce in us, whereby we are enabled to distinguish the sorts of particular substances, to discern the states they are in, and so to take them for our necessities, and to apply them to our uses. Thus the idea of whiteness, or bitterness, as it is in the mind, exactly answering that power which is in any body to produce it there, has all the real conformity it can, or ought to have, with things without us. And this conformity between our simple ideas, and the existence of things, is sufficient for real knowledge.

2. All complex ideas, except of substances.

§. 5. Secondly, all our complex ideas, except those of substances, being archetypes of the mind's own making, not intended to be the copies of any thing, nor referred to the existence of any thing, as to their originals; cannot want any conformity necessary to real knowledge. For that which is not designed to represent any thing but itself, can never be capable of a wrong representation, nor mislead us from the true apprehension of any thing, by its dislikeness to it; and such, excepting those of substances, are all our complex ideas: which, as I have showed in another place, are combinations of ideas, which the mind, by its free choice, puts together, without considering any connexion they have in nature. And hence it is, that in all these sorts the ideas themselves are considered as the archetypes, and things no otherwise regarded, but as they are conformable to them. So that we cannot but be infallibly certain, that all the knowledge we attain concerning these ideas is real, and reaches things themselves; because in all our thoughts, reasonings, and discourses of this kind, we intend things no farther than as they are conformable to our ideas. So that in these we cannot miss of a certain and undoubted reality.

Hence the reality of mathematical knowledge.

§. 6. I doubt not but it will be easily granted, that the knowledge we have of mathematical truths, is not only certain, but real knowledge; and not the bare empty vision of vain insignificant chimeras of the brain: and

yet, if we will consider, we shall find that it is only of our own ideas. The mathematician considers the truth and properties belonging to a rectangle, or circle, only as they are in idea in his own mind. For it is possible he never found either of them existing mathematically, i. e. precisely true, in his life. But yet the knowledge he has of any truths or properties belonging to a circle, or any other mathematical figure, are nevertheless true and certain, even of real things existing; because real things are no farther concerned, nor intended to be meant by any such propositions, than as things really agree to those archetypes in his mind. Is it true of the idea of a triangle, that its three angles are equal to two right ones? It is true also of a triangle, wherever it really exists. Whatever other figure exists, that is not exactly answerable to the idea of a triangle in his mind, is not at all concerned in that proposition: and therefore he is certain all his knowledge concerning such ideas is real knowledge; because intending things no farther than they agree with those his ideas, he is sure what he knows concerning those figures, when they have barely an ideal existence in his mind, will hold true of them also, when they have real existence in matter; his consideration being barely of those figures, which are the same, wherever or however they exist.

And of moral.

§. 7. And hence it follows that moral knowledge is as capable of real certainty, as mathematics. For certainty being but the perception of the agreement or disagreement of our ideas; and demonstration nothing but the perception of such agreement, by the intervention of other ideas, or mediums; our moral ideas, as well as mathematical, being archetypes themselves, and so adequate and complete ideas; all the agreement or disagreement, which we shall find in them, will produce real knowledge, as well as in mathematical figures.

Existence not required to make it real.

§. 8. For the attaining of knowledge and certainty, it is requisite that we have determined ideas; and, to make our knowledge real, it is requisite that the ideas answer their archetypes. Nor let it be wondered, that I place the

certainty of our knowledge in the consideration of our ideas, with so little care and regard (as it may seem) to the real existence of things: since most of those discourses, which take up the thoughts, and engage the disputes of those who pretend to make it their business to enquire after truth and certainty, will, I presume, upon examination be found to be general propositions, and notions in which existence is not at all concerned. All the discourses of the mathematicians about the squaring of a circle, conic sections, or any other part of mathematics, concern not the existence of any of those figures; but their demonstrations, which depend on their ideas, are the same, whether there be any square or circle existing in the world, or no. In the same manner the truth and certainty of moral discourses abstracts from the lives of men, and the existence of those virtues in the world whereof they treat. Nor are Tully's offices less true, because there is nobody in the world that exactly practises his rules, and lives up to that pattern of a virtuous man which he has given us, and which existed no where, when he writ, but in idea. If it be true in speculation, i. e. in idea, that murder deserves death, it will also be true in reality of any action that exists conformable to that idea of murder. As for other actions, the truth of that proposition concerns them not. And thus it is of all other species of things, which have no other essences but those ideas, which are in the minds of men.

Nor will it be less true or certain, because moral ideas are of our own making and naming.

§. 9. But it will here be said, that if moral knowledge be placed in the contemplation of our own moral ideas, and those, as other modes, be of our own making, what strange notions will there be of justice and temperance? What confusion of virtues and vices, if every one may make what ideas of them he pleases? No confusion or disorder in the things themselves, nor the reasonings about them; no more than (in mathematics) there would be a disturbance in the demonstration, or a change in the properties of figures, and their relations one to another, if a man should make a triangle with four corners, or a

trapezium with four right angles: that is, in plain English, change the names of the figures, and call that by one name, which mathematicians call ordinarily by another. For let a man make to himself the idea of a figure with three angles, whereof one is a right one, and call it, if he please, equilaterum or trapezium, or any thing else, the properties of and demonstrations about that idea will be the same, as if he called it a rectangular triangle. I confess the change of the name, by the impropriety of speech, will at first disturb him, who knows not what idea it stands for; but as soon as the figure is drawn, the consequences and demonstration are plain and clear. Just the same is it in moral knowledge, let a man have the idea of taking from others, without their consent, what their honest industry has possessed them of, and call this justice, if he please. He that takes the name here without the idea put to it, will be mistaken, by joining another idea of his own to that name: but strip the idea of that name, or take it such as it is in the speaker's mind, and the same things will agree to it, as if you called it injustice. Indeed wrong names in moral discourses breed usually more disorder, because they are not so easily rectified as in mathematics, where the figure, once drawn and seen, makes the name useless and of no force. For what need of a sign, when the thing signified is present and in view? But in moral names that cannot be so easily and shortly done, because of the many decompositions that go to the making up the complex ideas of those modes. But yet for all this, miscalling of any of those ideas, contrary to the usual signification of the words of that language, hinders not but that we may have certain and demonstrative knowledge of their several agreements and disagreements, if we will carefully, as in mathematics, keep to the same precise ideas, and trace them in their several relations one to another, without being led away by their names. If we but separate the idea under consideration from the sign that stands for it, our knowledge goes equally on in the discovery of real truth and certainty, whatever sounds we make use of.

Misnaming disturbs not the certainty of the knowledge.

§. 10. One thing more we are to take notice of, that where God, or any other law-maker, hath defined any moral names, there they have made the essence of that species to which that name belongs; and there it is not safe to apply or use them otherwise: but in other cases it is bare impropriety of speech to apply them contrary to the common usage of the country. But yet even this too disturbs not the certainty of that knowledge, which is still to be had by a due contemplation, and comparing of those even nick-named ideas.

Ideas of substances have their archetypes without us.

§. 11. Thirdly, there is another sort of complex ideas, which being referred to archetypes without us, may differ from them, and so our knowledge about them may come short of being real. Such are our ideas of substances, which consisting of a collection of simple ideas, supposed taken from the works of nature, may yet vary from them, by having more or different ideas united in them, than are to be found united in the things themselves. From whence it comes to pass, that they may, and often do, fail of being exactly conformable to things themselves.

So far as they agree with those, so far our knowledge concerning them is real.

§. 12. I say then, that to have ideas of substances, which, by being conformable to things, may afford us real knowledge, it is not enough, as in modes, to put together such ideas as have no inconsistence, though they did never before so exist; v. g. the ideas of sacrilege or perjury, &c. were as real and true ideas before, as after the existence of any such fact. But our ideas of substances being supposed copies, and referred to archetypes without us, must still be taken from something that does or has existed; they must not consist of ideas put together at the pleasure of our thoughts, without any real pattern they were taken from, though we can perceive no inconsistence in such a combination. The reason whereof is, because we knowing not what real constitution it is of substances, whereon our simple ideas depend, and which really is the cause of the strict union of some of them one with another,

and the exclusion of others; there are very few of them, that we can be sure are, or are not, inconsistent in nature, any farther than experience and sensible observation reach. Herein therefore is founded the reality of our knowledge concerning substances, that all our complex ideas of them must be such, and such only, as are made up of such simple ones, as have been discovered to co-exist in nature. And our ideas being thus true: though not, perhaps, very exact copies, are yet the subjects of real (as far as we have any) knowledge of them. Which (as has been already shown) will not be found to reach very far: but so far as it does, it will still be real knowledge. Whatever ideas we have, the agreement we find they have with others, will still be knowledge. If those ideas be abstract, it will be general knowledge. But, to make it real concerning substances, the ideas must be taken from the real existence of things. Whatever simple ideas have been found to co-exist in any substance, these we may with confidence join together again, and so make abstract ideas of substances. For whatever have once had an union in nature, may be united again.

In our inquiries about substances, we must consider ideas, and not confine our thoughts to names, or species supposed set out by names.

§. 13. This, if we rightly consider, and confine not our thoughts and abstract ideas to names, as if there were, or could be no other sorts of things than what known names had already determined, and as it were set out; we should think of things with greater freedom and less confusion than perhaps we do. It would possibly be thought a bold paradox, if not a very dangerous falsehood, if I should say, that some changelings, who have lived forty years together without any appearance of reason, are something between a man and a beast: which prejudice is founded upon nothing else but a false supposition, that these two names, man and beast, stand for distinct species so set out by real essences, that there can come no other species between them: whereas if we will abstract from those names, and the supposition of such specific essences made by nature, wherein all things of the same denominations did exactly and

equally partake; if we would not fancy that there were a certain number of these essences, wherein all things, as in moulds, were cast and formed; we should find that the idea of the shape, motion, and life of a man without reason, is as much a distinct idea, and makes as much a distinct sort of things from man and beast, as the idea of the shape of an ass with reason would be different from either that of man or beast, and be a species of an animal between, or distinct from both.

Objection against a changeling being something between a man and beast, answered.

§. 14. Here every body will be ready to ask, If changelings may be supposed something between man and beast, pray what are they? I answer, changelings, which is as good a word to signify something different from the signification of man or beast, as the names man and beast are to have significations different one from the other. This, well considered, would resolve this matter, and show my meaning without any more ado. But I am not so unacquainted with the zeal of some men, which enables them to spin consequences, and to see religion threatened whenever any one ventures to quit their forms of speaking; as not to foresee what names such a proposition as this is like to be charged with: and without doubt it will be asked, If changelings are something between man and beast, what will become of them in the other world? To which I answer, 1. It concerns me not to know or inquire. To their own master they stand or fall. It will make their state neither better nor worse, whether we determine any thing of it or no. They are in the hands of a faithful creator and a bountiful father, who disposes not of his creatures according to our narrow thoughts or opinions, nor distinguishes them according to names and species of our contrivance. And we that know so little of this present world we are in, may, I think, content ourselves without being peremptory in defining the different states, which creatures shall come into when they go off this stage. It may suffice us, that he hath made known to all those, who are capable of instruction, discoursing, and reason-

ing, that they shall come to an account, and receive according to what they have done in this body.

§. 15. But, secondly, I answer, the force of these men's question (viz. will you deprive changelings of a future state?) is founded on one of these two suppositions, which are both false. The first is, that all things that have the outward shape and appearance of a man must necessarily be designed to an immortal future being after this life: or, secondly, that whatever is of human birth must be so. Take away these imaginations, and such questions will be groundless and ridiculous. I desire then those who think there is no more but an accidental difference between themselves and changelings, the essence in both being exactly the same, to consider whether they can imagine immortality annexed to any outward shape of the body? the very proposing it, is, I suppose, enough to make them disown it. No one yet, that ever I heard of, how much soever immersed in matter, allowed that excellency to any figure of the gross sensible outward parts, as to affirm eternal life due to it, or a necessary consequence of it; or that any mass of matter should, after its dissolution here, be again restored hereafter to an everlasting state of sense, perception, and knowledge, only because it was moulded into this or that figure, and had such a particular frame of its visible parts. Such an opinion as this, placing immortality in a certain superficial figure, turns out of doors all consideration of soul or spirit, upon whose account alone some corporeal beings have hitherto been concluded immortal, and others not. This is to attribute more to the outside than inside of things; and to place the excellency of a man more in the external shape of his body, than internal perfections of his soul: which is but little better than to annex the great and inestimable advantage of immortality and life everlasting, which he has above other material beings, to annex it, I say, to the cut of his beard, or the fashion of his coat. For this or that outward mark of our bodies no more carries with it the hope of an eternal duration, than the fashion of a man's suit gives him reasonable grounds to imagine it will never wear out, or that it will make him

immortal. It will perhaps be said, that nobody thinks that the shape makes any thing immortal, but it is the shape is the sign of a rational soul within, which is immortal. I wonder who made it the sign of any such thing: for barely saying it, will not make it so. It would require some proofs to persuade one of it. No figure that I know speaks any such language. For it may as rationally be concluded, that the dead body of a man, wherein there is to be found no more appearance or action of life than there is in a statue, has yet nevertheless a living soul in it because of its shape; as that there is a rational soul in a changeling, because he has the outside of a rational creature; when his actions carry far less marks of reason with them, in the whole course of his life, than what are to be found in many a beast.

Monsters. §. 16. But it is the issue of rational parents, and must therefore be concluded to have a rational soul. I know not by what logic you must so conclude. I am sure this is a conclusion, that men no where allow of. For if they did, they would not make bold, as every where they do, to destroy ill-formed and mis-shaped productions. Ay, but these are monsters. Let them be so; what will your driveling, unintelligent, intractable changeling be? Shall a defect in the body make a monster; a defect in the mind (the far more noble, and in the common phrase, the far more essential part) not? Shall the want of a nose, or a neck, make a monster, and put such issue out of the rank of men; the want of reason and understanding, not? This is to bring all back again to what was exploded just now: this is to place all in the shape, and to take the measure of a man only by his outside. To show that, according to the ordinary way of reasoning in this matter, people do lay the whole stress on the figure, and resolve the whole essence of the species of man (as they make it) into the outward shape, how unreasonable soever it be, and how much soever they disown it; we need but trace their thoughts and practice a little farther, and then it will plainly appear. The well-shaped changeling is a man, has a rational soul, though it appear not; this is past doubt, say you. Make the

ears a little longer, and more pointed, and the nose a little flatter than ordinary, and then you begin to boggle: make the face yet narrower, flatter and longer, and then you are at a stand: add still more and more of the likeness of a brute to it, and let the head be perfectly that of some other animal, then presently it is a monster; and it is demonstration with you that it hath no rational soul, and must be destroyed. Where now (I ask) shall be the just measure of the utmost bounds of that shape that carries with it a rational soul? For since there have been human fœtuses produced, half beast, and half man; and others three parts one, and one part the other; and so it is possible they may be in all the variety of approaches to the one or the other shape, and may have several degrees of mixture of the likeness of a man or a brute; I would gladly know what are those precise lineaments, which, according to this hypothesis, are, or are not capable of a rational soul to be joined to them. What sort of outside is the certain sign that there is, or is not such an inhabitant within? For till that be done, we talk at random of man: and shall always, I fear, do so, as long as we give ourselves up to certain sounds, and the imaginations of settled and fixed species in nature, we know not what. But after all, I desire it may be considered, that those who think they have answered the difficulty by telling us, that a misshaped fœtus is a monster, run into the same fault they are arguing against, by constituting a species between man and beast. For what else, I pray, is their monster in the case (if the word monster signifies any thing at all) but something neither man nor beast, but partaking somewhat of either? And just so is the changeling before-mentioned. So necessary is it to quit the common notion of species and essences, if we will truly look into the nature of things, and examine them, by what our faculties can discover in them as they exist, and not by groundless fancies, that have been taken up about them.

Words and species.

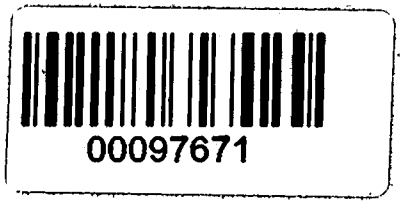
§. 17. I have mentioned this here, because I think we cannot be too cautious that words and species, in the ordinary

notions which we have been used to of them, impose not on us. For I am apt to think, therein lies one great obstacle to our clear and distinct knowledge, especially in reference to substances; and from thence has rose a great part of the difficulties about truth and certainty. Would we accustom ourselves to separate our contemplations and reasonings from words, we might, in a great measure, remedy this inconvenience within our own thoughts; but yet it would still disturb us in our discourse with others, as long as we retained the opinion, that species and their essences were any thing else but our abstract ideas (such as they are) with names annexed to them, to be the signs of them.

Recapitulation.

§. 18. Wherever we perceive the agreement or disagreement of any of our ideas, there is certain knowledge: and wherever we are sure those ideas agree with the reality of things, there is certain real knowledge. Of which agreement of our ideas, with the reality of things, having here given the marks, I think I have shown wherein it is, that certainty, real certainty, consists: which, whatever it was to others, was, I confess, to me heretofore, one of those desiderata which I found great want of.

END OF THE SECOND VOLUME.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